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1988
Motor Freight Transportation and Warehousing Survey

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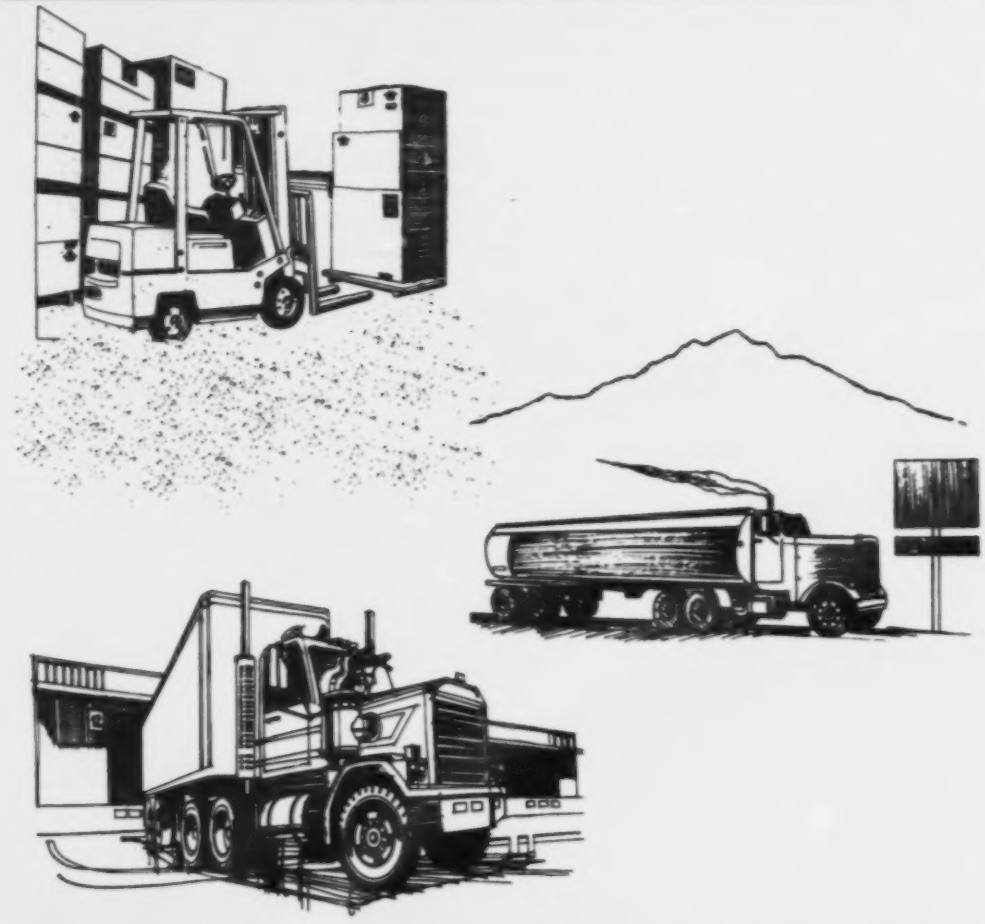

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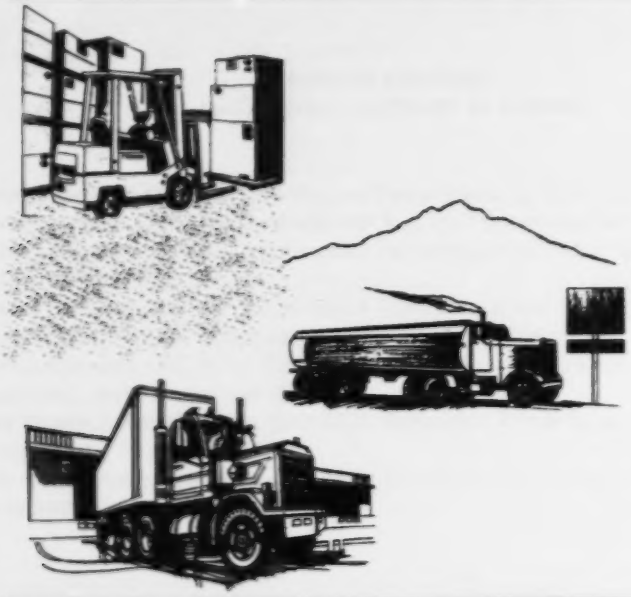

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Michael R. Darby, Under Secretary
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INTRODUCTION

COVERAGE

This report presents results from the 1988 Motor Freight Transportation and Warehousing Survey. This annual survey covers all employer firms with one or more establishments that are primarily engaged in providing commercial motor freight transportation and warehousing services. This includes firms furnishing local or long distance trucking or transfer services, and those engaged in the storage of farm products, furniture and other household goods, or commercial goods of any nature.

This survey excludes private motor freight carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees. As a result, the dollar volume estimates and estimates of year-to-year percentage change presented in this report should not be interpreted as representing measurements of total trucking industry activity.

Appendix A gives a more detailed explanation of the survey coverage, and sampling and estimation methodology. Appendix B provides a description of each kind of business included in this report. Extracts of the 1988 report forms are provided in Appendix C.

UNPUBLISHED DATA

Estimates for some kinds of business not separately shown in this report are produced as a by-product of the published statistics. These additional data have not been published because of their high sampling variability, poor response quality, or other factors that resulted in their failure to meet Census Bureau standards for publication. The Bureau of the Census, upon written request, will release such figures for individual use. It should be noted that some unpublished figures can be derived from this report by subtracting published data from their respective totals. However, such figures would be subject to the high sampling variability described previously. These unpublished estimates are for internal use only.

SUMMARY OF DATA

Total 1988 operating revenues for trucking services (SIC 421) were estimated at $101.0 billion, up 9.2 percent (± 2.9 percent) from 1987. Intercity trucking, which accounted for approximately 78 percent of motor carrier revenues in 1988, rose 8.2 percent (± 3.1 percent). Local trucking revenues increased 10.1 percent (± 6.6 percent) from the previous year. Approximately 48 percent of 1988 motor carrier revenues were derived from transporting "other manufactured products" that included furniture, hardware, glass products, and textiles and apparel; and "all other commodities" that included mixed cargo and the delivery of small packages. The 1988 motor carrier revenues from the transport of forestry, wood and paper products, and chemicals and allied products rose 25.7 and 23.3 percent respectively from 1987. Truckload shipments (shipments weighing 10,000 pounds or more) accounted for approximately 65 percent of motor carrier revenues for 1988, as they did in 1987.

Total operating expenses in 1988 were estimated at $96.4 billion, up 9.4 percent (± 3.2 per cent) from the previous year. Annual payroll rose 8.7 percent (± 2.5 percent) to an estimated $30.7 billion. The cost of insurance in 1988 rose 12.3 percent (± 7.9 percent) from the previous year, while the cost of purchased fuels gained 8.7 percent (± 4.8 percent). Purchased transportation, which accounted for approximately 23 percent of total expenses in 1988, increased 10.0 percent (± 8.3 percent) from 1987.

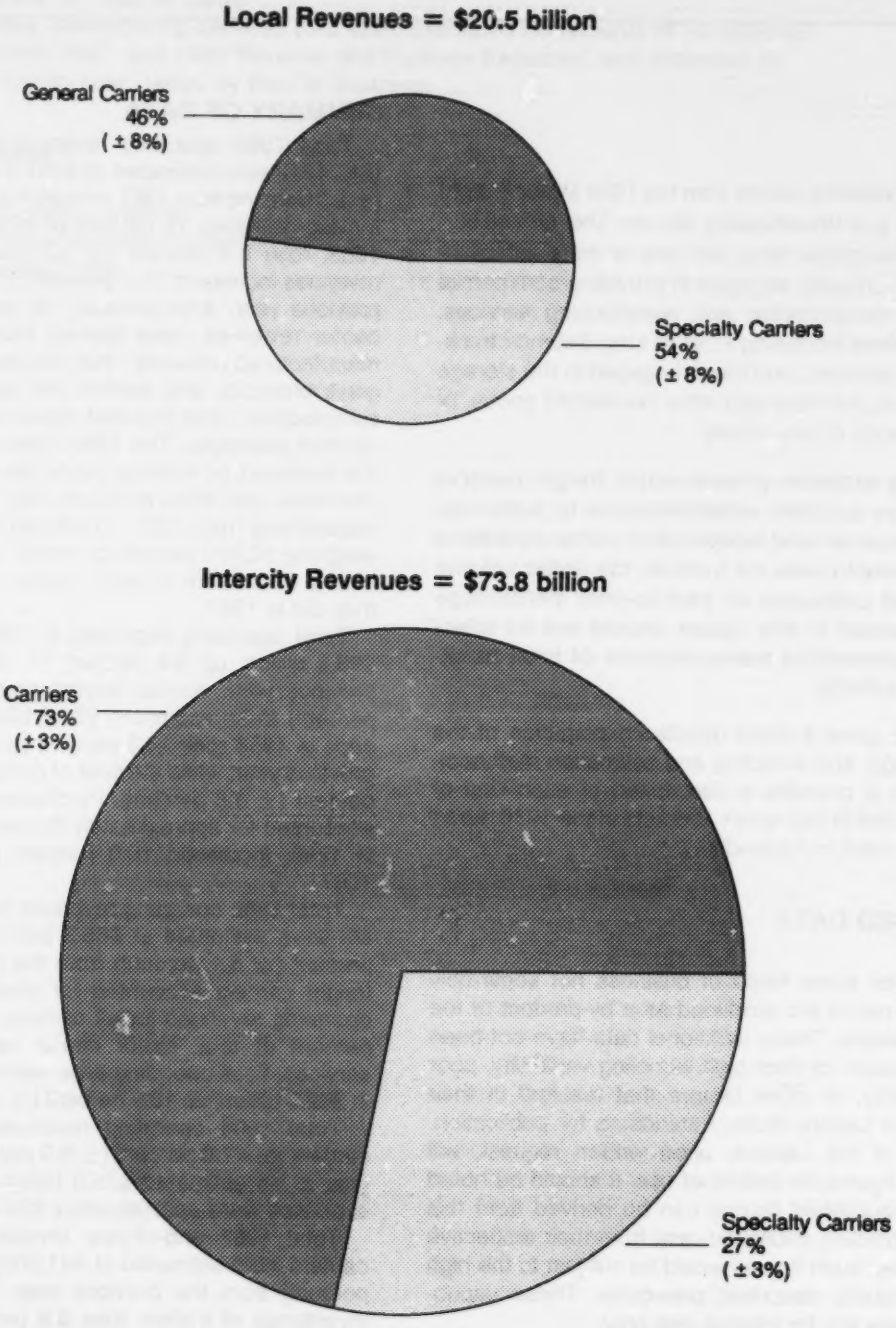
Total 1988 operating revenues for general freight carriers were estimated at $65.2 billion, an increase of 10.0 percent (± 5.1 percent) from the previous year. General freight carriers accounted for about 65 percent of total operating revenues for all carriers, and approximately 73 percent of total motor carrier revenues from intercity services. Total operating expenses in 1988 were estimated at $62.9 billion, up 10.9 percent (± 5.2 percent) from 1987.

Total 1988 operating revenues for specialty freight carriers rose 7.8 percent (± 6.9 percent) from the previous year to an estimated $35.8 billion. Total 1988 operating expenses were approximately $33.6 billion.

Total 1988 end-of-year inventories of trucks for all carriers were estimated at 241,000, up 6.6 percent (± 3.0 percent) from the previous year. The 1988 end-of-year inventories of trailers rose 6.5 percent (± 4.1 percent).

Figure 1.

Trucking Services (SIC 421): Estimated Percentages of 1988 Motor Carrier Revenues from Local and Intercity Hauling, by Type of Carrier



Note: Percentages are accompanied by a 90-percent confidence interval. See Appendix A under Reliability of Data for further information on confidence intervals.

Table 1. Motor Freight Transportation and Warehousing Services (SIC 42): 1986, 1987, and 1988 Summary Statistics, by Kind of Business

Item	Motor freight transportation and warehousing services[1] (SIC 42)	Trucking, local and long distance[2] (SIC 421)	Public warehousing (SIC 422)	Farm product warehousing and storage (SIC 4221)	Refrigerated warehousing (SIC 4222)	Household goods warehousing and storage (SIC 4224)	General and special warehousing and storage n.e.c. (SIC 4225,4226)
Total Operating Revenues							
Dollar volume (mil.)							
1988	106,745	101,042	5,498	637	1,246	259	3,356
1987	97,684	92,494	4,911	617	1,231	251	2,812
1986	91,544	86,614	4,750	(S)	1,135	238	2,856
Year-to-year percent change							
1988/1987	9.3	9.2	12.0	3.2	1.2	3.2	19.3
1987/1986	6.7	6.8	3.4	(S)	8.5	5.2	−1.5
Total Operating Expenses							
Dollar volume (mil.)							
1988	101,460	96,443	4,836	546	1,069	209	3,012
1987	92,608	88,142	4,211	510	1,017	196	2,488
1986	85,472	81,193	4,131	(S)	999	187	2,500
Year-to-year percent change							
1988/1987	9.6	9.4	14.8	7.1	5.1	6.6	21.1
1987/1986	8.3	8.6	1.9	(S)	1.8	4.7	−0.5
Total Annual Payroll							
Dollar volume (mil.)							
1988	32,377	30,710	1,590	(S)	362	66	997
1987	29,780	28,257	1,422	(S)	343	58	862
1986	27,798	26,305	1,433	(S)	349	54	884
Year-to-year percent change							
1988/1987	8.7	8.7	11.8	(S)	5.5	13.8	15.7
1987/1986	7.1	7.4	−0.8	(S)	−1.7	8.1	−2.5

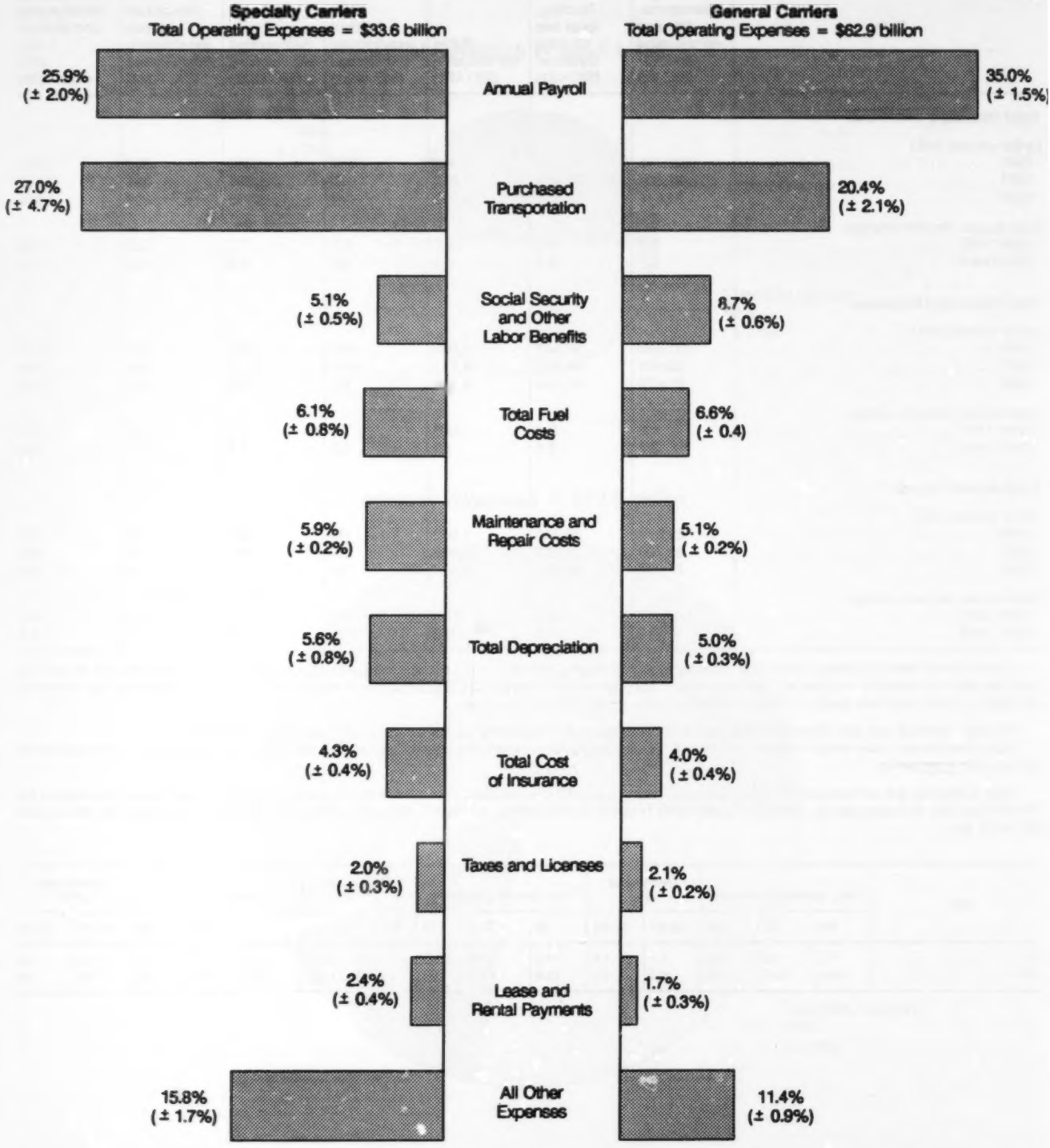
S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to high sampling variability or poor response quality. These unpublished data are for internal use only.

[1]Includes terminal and joint terminal maintenance facilities for motor freight transportation (SIC 4231) not shown separately.
[2]Excludes private motor freight carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees.

Note: Estimates are not adjusted for price changes. Tables 8 and 12 provide estimated measures of sampling variability (coefficients of variation) for SIC 421 and SIC 422 respectively. Estimated coefficients of variation for revenue, expense, and payroll estimates, and year-to-year ratios for SIC 42 and SIC 4221 are:

SIC	Total operating revenues			Year-to-year ratio		Total operating expenses			Year-to-year ratio		Annual payroll			Year-to-year ratio	
	88	87	86	88/87	87/86	88	87	86	88/87	87/86	88	87	86	88/87	87/86
42	4.2	3.8	3.3	1.6	1.6	4.3	3.7	3.5	1.7	1.5	2.5	1.7	1.9	1.4	1.4
4221	12.0	12.0	(S)	6.2	(S)	10.6	11.1	(S)	5.6	(S)	(S)	(S)	(S)	(S)	(S)

Figure 2.
Trucking Services (SIC 421): Estimated Percentages of 1988 Operating Expenses, by Type of Carrier



Note: Percentages are accompanied by a 90-percent confidence interval. See Appendix A under Reliability of Data for further information on confidence intervals.

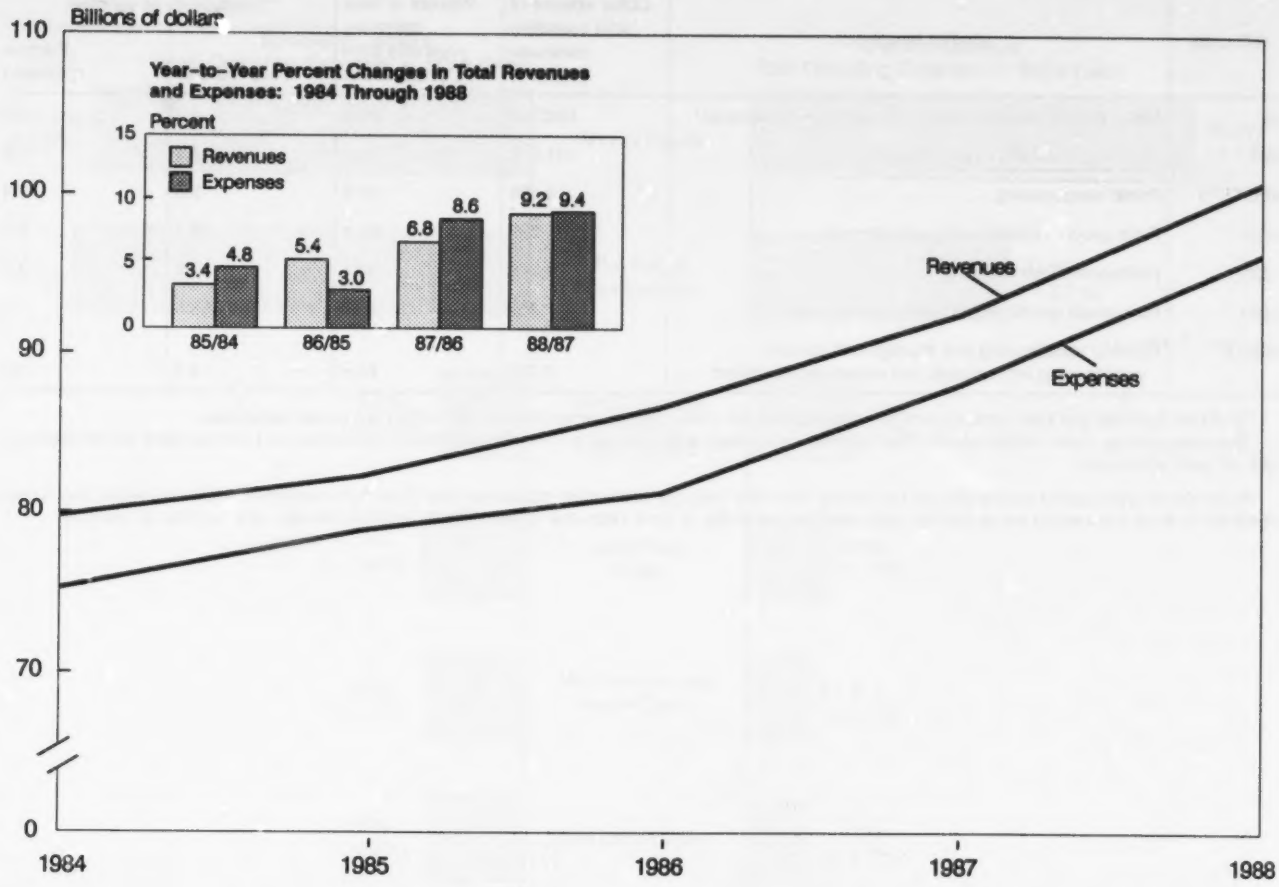
Table 2. Motor Freight Transportation and Warehousing Services (SIC 42): Estimated 1988 Corporate Revenues, by Kind of Business

SIC code	Kind of business	Dollar volume of total operating revenues (millions)	Percent of total operating revenues from corporations	Coefficients of variation	
				Dollar volume	Percent estimates
42	Motor freight transportation and warehousing services[1]	106,745	93.6	4.2	0.9
421	Trucking, local and long distance[2]	101,042	93.9	4.3	0.9
422	Public warehousing	5,498	87.6	5.6	1.4
4221	Farm product warehousing and storage	637	84.4	12.0	5.2
4222	Refrigerated warehousing	1,246	88.1	6.4	4.7
4224	Household goods warehousing and storage	259	58.8	18.5	7.0
4225,6	General warehousing and storage and special warehousing and storage, not elsewhere classified	3,356	89.9	9.7	1.8

[1]Includes terminal and joint terminal maintenance facilities for motor freight transportation (SIC 4231) not shown separately.
[2]Excludes private motor freight carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees.

Note: Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to high sampling variability or poor response quality. These unpublished data are for internal use only.

Figure 3.
Trucking Services (SIC 421): Estimated Total Revenues, Total Expenses, and Year-to-Year Percent Changes for 1984 Through 1988



Note: See table 8 for estimated measures of sampling variability (coefficients of variation) for years 1986 through 1988. Estimated measures of sampling variability are not shown for 1984 and 1985, but are available upon request.

Table 3. Trucking Services (SIC 421): Estimated 1986, 1987, and 1988 Revenues and Expenses, by Type of Carrier

Item	All carriers					Specialty freight carriers					General freight carriers				
	Dollar volume (millions)			Year-to-year percent change		Dollar volume (millions)			Year-to-year percent change		Dollar volume (millions)			Year-to-year percent change	
	1988	1987	1986	1988/ 1987	1987/ 1986	1988	1987	1986	1988/ 1987	1987/ 1986	1988	1987	1986	1988/ 1987	1987/ 1986
Operating Revenues															
Total	101,042	92,494	86,614	9.2	6.8	35,807	33,202	31,287	7.8	6.1	65,235	59,293	55,328	10.0	7.2
Motor carrier	94,265	86,801	80,699	8.6	7.6	31,373	29,308	27,186	7.0	7.8	62,892	57,493	53,513	9.4	7.4
Local trucking	20,476	18,603	15,634	10.1	18.9	11,129	10,854	9,452	2.5	14.7	9,347	7,749	6,182	20.6	25.3
Intercity trucking	73,789	68,198	65,065	8.2	4.8	20,244	18,454	17,734	9.7	4.1	53,545	49,744	47,330	7.6	5.1
Operating Expenses															
Total	96,443	88,142	81,193	9.4	8.6	33,551	31,438	29,601	6.7	6.2	62,892	56,703	51,592	10.9	9.9
Annual payroll	30,710	28,257	26,305	8.7	7.4	8,690	8,089	7,571	7.4	6.8	22,020	20,168	18,734	9.2	7.7
Employer contributions to Social Security and other supplemental labor benefits	7,167	6,480	5,940	10.6	9.1	1,702	1,582	1,459	7.6	8.5	5,465	4,898	4,481	11.6	9.3
Purchased fuels	6,172	5,676	5,244	8.7	8.2	2,039	1,894	1,678	7.7	12.9	4,133	3,782	3,566	9.3	6.1
Cost of purchased transportation	21,893	19,901	19,097	10.0	4.2	9,060	8,448	8,715	7.2	-3.1	12,833	11,454	10,381	12.0	10.3
Lease and rental payments	1,882	1,679	1,520	12.1	10.5	794	735	644	8.0	14.0	1,088	945	876	15.1	7.9
Cost of insurance	3,945	3,513	3,053	12.3	15.1	1,444	1,454	1,223	-0.7	18.9	2,501	2,059	1,830	21.5	12.5
Maintenance and repair costs	5,198	4,728	4,374	9.9	8.1	1,972	1,901	1,774	3.7	7.2	3,226	2,827	2,600	14.1	8.7
Depreciation	5,012	4,585	4,157	9.3	10.3	1,884	1,821	1,573	3.5	15.7	3,128	2,764	2,584	13.2	7.0
Taxes and licenses	2,013	1,867	1,829	7.8	2.1	668	699	597	-4.4	17.1	1,345	1,169	1,233	15.1	-5.2
Other operating expenses	12,451	11,455	9,674	8.7	18.4	5,298	4,817	4,367	10.0	10.3	7,153	6,638	5,308	7.8	25.1

Note: Excludes private motor freight carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees. See table 8 for estimated measures of sampling variability (coefficients of variation). Estimates are not adjusted for price changes. Detail may not add to total due to rounding.

Table 4. Trucking Services (SIC 421): Components of 1987 and 1988 Estimates of Operating Expenses, by Type of Carrier

Operating expenses	All carriers				Specialty freight carriers				General freight carriers			
	Dollar volume (millions)		Percent of total operating expenses		Dollar volume (millions)		Percent of total operating expenses		Dollar volume (millions)		Percent of total operating expenses	
	1988	1987	1988	1987	1988	1987	1988	1987	1988	1987	1988	1987
Total	96,443	88,142	100.0	100.0	33,551	31,438	100.0	100.0	62,892	56,703	100.0	100.0
Annual payroll	30,710	28,257	31.8	32.1	8,690	8,089	25.9	25.7	22,020	20,168	35.0	35.6
Employer contributions to Social Security and other supplemental labor benefits	7,167	6,480	7.4	7.4	1,702	1,582	5.1	5.0	5,465	4,898	8.7	8.6
Purchased fuels	6,172	5,676	6.4	6.4	2,039	1,894	6.1	6.0	4,133	3,782	6.6	6.7
Trucks and motor vehicles	5,846	5,376	6.1	6.1	1,925	1,790	5.7	5.7	3,921	3,587	6.2	6.3
Heat, power, or generating electricity	326	299	0.3	0.3	114	(S)	10.3	(S)	212	195	0.3	0.3
Lease and rental payments	1,882	1,679	2.0	1.9	794	735	2.4	2.3	1,088	945	1.7	1.7
Buildings, structures, and offices	1,572	1,336	1.6	1.5	671	650	2.0	2.1	(S)	686	(S)	1.2
Machinery and equipment (except motor vehicles)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Cost of purchased transportation	21,893	19,901	22.7	22.6	9,060	8,448	27.0	26.9	12,833	11,454	20.4	20.0
Trucks and other motor vehicles rented or leased with drivers	17,170	(S)	17.8	(S)	8,160	(S)	24.3	(S)	9,010	(S)	14.3	(S)
Trucks and other motor vehicles rented or leased without drivers	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Other purchased transportation including railroads, airlines, water, and other motor carriers	2,136	2,025	2.2	2.3	(S)	(S)	(S)	(S)	1,969	1,852	3.1	3.3
Cost of insurance	3,945	3,513	4.1	4.0	1,444	1,454	4.3	4.6	2,501	2,059	4.0	3.6
Public liability and property damage insurance	2,447	2,252	2.5	2.6	916	963	2.7	3.1	1,531	1,290	2.4	2.3
Insurance for loss or damage to motor vehicles and their cargos	1,274	1,061	1.3	1.2	420	393	1.3	1.2	854	669	1.4	1.2
Insurance for buildings, structures, offices, and machinery and equipment (except motor vehicles)	224	200	0.2	0.2	108	99	0.3	0.3	116	101	0.2	0.2
Maintenance and repair costs	5,198	4,728	5.4	5.4	1,972	1,901	5.9	6.0	3,226	2,827	5.1	5.0
Motor vehicle parts for self-repair, including tires and tubes	3,102	2,870	3.2	3.3	1,174	1,146	3.5	3.6	1,928	1,723	3.1	3.0
Purchased repairs to trucks and other motor vehicles	1,686	1,510	1.7	1.7	648	614	1.9	2.0	1,038	895	1.7	1.6
Purchased repairs to buildings, structures, and offices	193	180	0.2	0.2	59	60	0.2	0.2	134	120	0.2	0.2
Purchased repairs to machinery and equipment (except motor vehicles)	217	169	0.2	0.2	(S)	(S)	(S)	(S)	(S)	89	(S)	0.2

Table 4. Trucking Services (SIC 421): Components of 1987 and 1988 Estimates of Operating Expenses, by Type of Carrier

Operating expenses	All carriers				Specialty freight carriers				General freight carriers			
	Dollar volume (millions)		Percent of total operating expenses		Dollar volume (millions)		Percent of total operating expenses		Dollar volume (millions)		Percent of total operating expenses	
	1988	1987	1988	1987	1988	1987	1988	1987	1988	1987	1988	1987
Depreciation	5,012	4,585	5.2	5.2	1,884	1,821	5.6	5.8	3,128	2,764	5.0	4.9
Trucks and other motor vehicles	4,102	3,696	4.3	4.2	1,561	1,464	4.7	4.7	2,541	2,232	4.0	3.9
Buildings, structures, and offices	340	318	0.4	0.4	(S)	73	(S)	0.2	251	245	0.4	0.4
Machinery and equipment (except motor vehicles)	570	571	0.6	0.6	(S)	(S)	(S)	(S)	336	287	0.5	0.5
Taxes and licenses	2,013	1,867	2.1	2.1	668	699	2.0	2.2	1,345	1,169	2.1	2.1
Other operating expenses	12,451	11,455	12.9	13.0	5,298	4,817	15.8	15.3	7,153	6,638	11.4	11.7

S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to high sampling variability or poor response quality. These unpublished data are for internal use only.

Note: Excludes private motor freight carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees. See table 9 for estimated measures of sampling variability (coefficients of variation). Estimates are not adjusted for price changes. Detail may not add to total due to rounding.

Table 5. Trucking Services (SIC 421): Estimated 1987 and 1988 Motor Carrier Revenues, by Size of Shipments and Commodities Handled

Item	Dollar volume (millions)		Year-to-year percent change	Percent of total motor carrier revenues		Coefficients of variation for percent of total motor carrier revenues	
	1988	1987	1988/1987	1988	1987	1988	1987
Motor carrier revenues	94,265	86,801	8.6	100.0	100.0	(X)	(X)
Size of shipments							
Truckload	61,576	56,307	9.4	65.3	64.9	2.7	2.8
Less-than-truckload	32,689	30,494	7.2	34.7	35.1	5.2	4.8
Commodities handled							
Agricultural and food products	12,424	12,055	3.1	13.2	13.9	10.3	12.3
Mining products, unrefined	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Building materials	5,058	4,269	18.5	5.4	4.9	12.2	11.5
Forestry, wood, and paper products	6,689	5,320	25.7	7.1	6.1	12.2	11.2
Chemicals and allied products (except petroleum)	5,259	4,265	23.3	5.6	4.9	14.4	13.6
Petroleum and petroleum products	2,684	2,268	18.3	2.8	2.6	15.6	14.3
Metals and metal products	7,840	7,606	3.1	8.3	8.8	8.9	9.1
Household goods	7,709	7,961	-3.2	8.2	9.2	9.7	10.9
Other manufactured products	14,539	13,720	6.0	15.4	15.8	6.4	7.2
All other goods	30,428	28,011	8.6	32.3	32.3	6.2	6.0

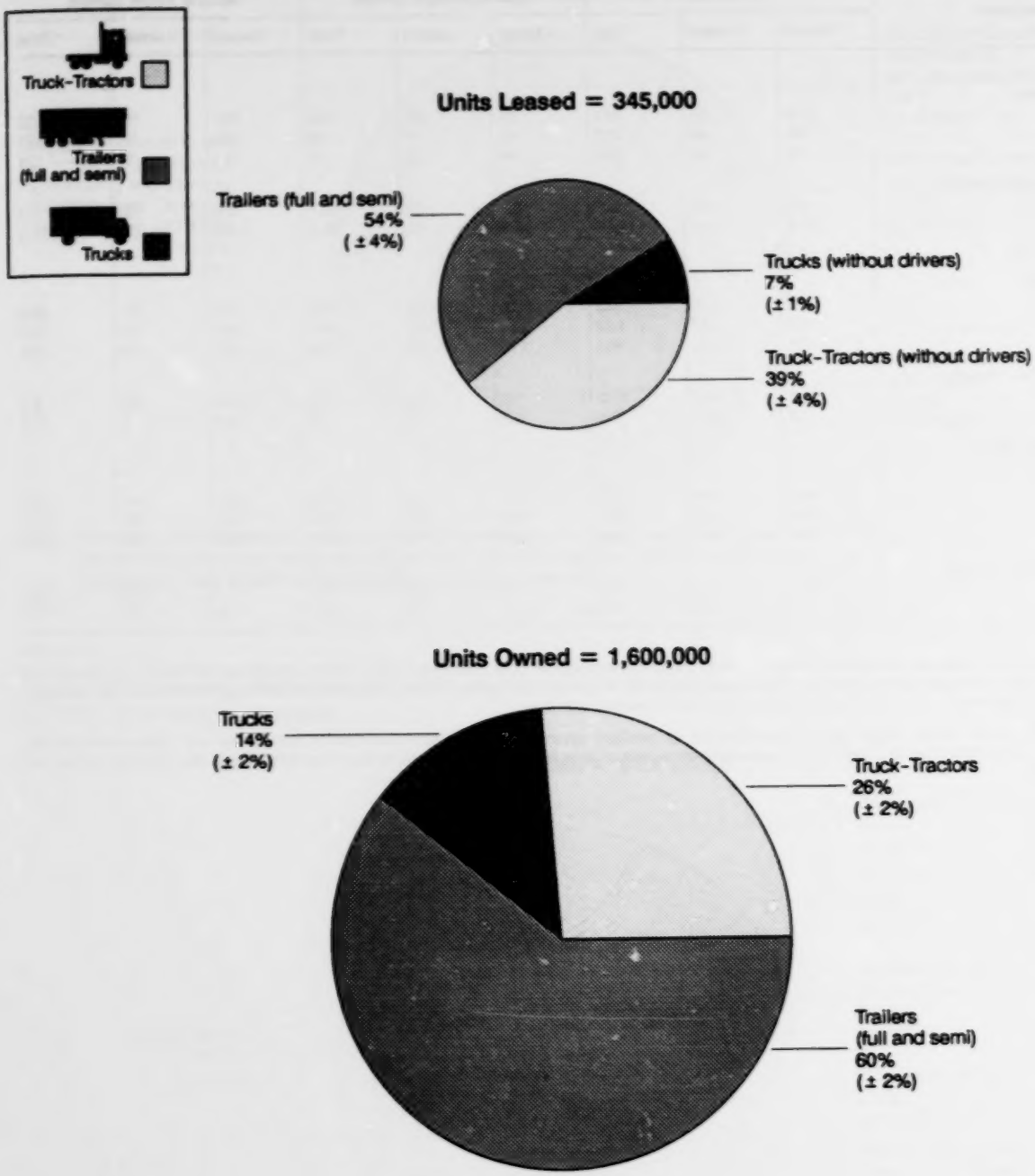
X Not applicable.

S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to high sampling variability or poor response quality. These unpublished data are for internal use only.

Note. Excludes private motor freight carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees. See table 10 for estimated measures of sampling variability (coefficients of variation) for dollar value and year-to-year percent change data. Estimates are not adjusted for price changes. Detail may not add to total due to rounding.

Figure 4.

Trucking Services (SIC 421): Estimated Inventories of Revenue Generating Freight Equipment, as of December 31, 1988



Note: See table 11 for estimated measures of sampling variability (coefficients of variation) for inventories. Percentages are accompanied by a 90-percent confidence interval. See appendix A under Reliability of Data for further information on confidence intervals.

Table 6. Trucking Services (SIC 421): Estimated Inventories of Revenue Generating Freight Equipment as of December 31, 1986, 1987, and 1988, by Type of Carrier

Equipment	All carriers			Specialty freight carriers			General freight carriers		
	Owned	Leased	Total	Owned	Leased	Total	Owned	Leased	Total
Trucks									
Units (Thousands)									
1988	216	25	241	95	(S)	103	121	(S)	138
1987	200	26	226	80	9	89	120	(S)	137
1986	178	23	201	69	(S)	77	108	(S)	124
Year-to-year percent change									
1988/1987	8.0	-3.8	6.6	18.8	(S)	15.7	0.8	(S)	0.7
1987/1986	12.8	11.4	12.6	15.5	(S)	16.0	11.0	(S)	10.5
Truck-tractors									
Units (Thousands)									
1988	418	135	553	(S)	(S)	190	272	91	363
1987	354	147	502	114	(S)	167	240	(S)	334
1986	331	131	461	110	(S)	165	221	75	295
Year-to-year percent change									
1988/1987	18.1	-8.2	10.2	(S)	(S)	13.8	13.3	(S)	8.7
1987/1986	7.2	13.0	8.9	4.2	(S)	1.2	8.6	(S)	13.1
Trailers (Full and Semi)									
Units (Thousands)									
1988	966	185	1,151	235	(S)	278	731	142	873
1987	r894	187	r1,081	r238	(S)	r290	r656	135	r791
1986	881	174	1,055	213	(S)	254	668	(S)	801
Year-to-year percent change									
1988/1987	8.1	-1.1	6.5	-1.3	(S)	-4.1	11.4	5.2	10.4
1987/1986	r1.5	7.5	r2.5	r11.7	(S)	r14.2	r-1.8	(S)	r-1.2

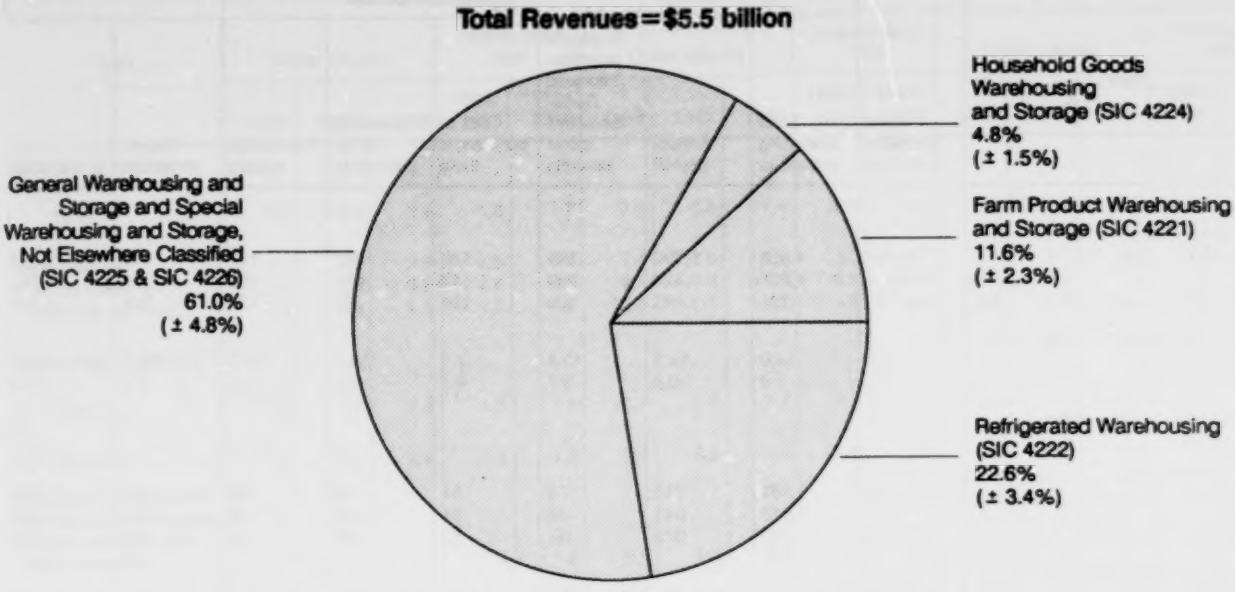
r Revised

S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to high sampling variability or poor response quality. These unpublished data are for internal use only.

Note: Excludes private motor freight carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees. See table 11 for estimated measures of sampling variability (coefficients of variation). Detail may not add to total due to rounding.

Figure 5.

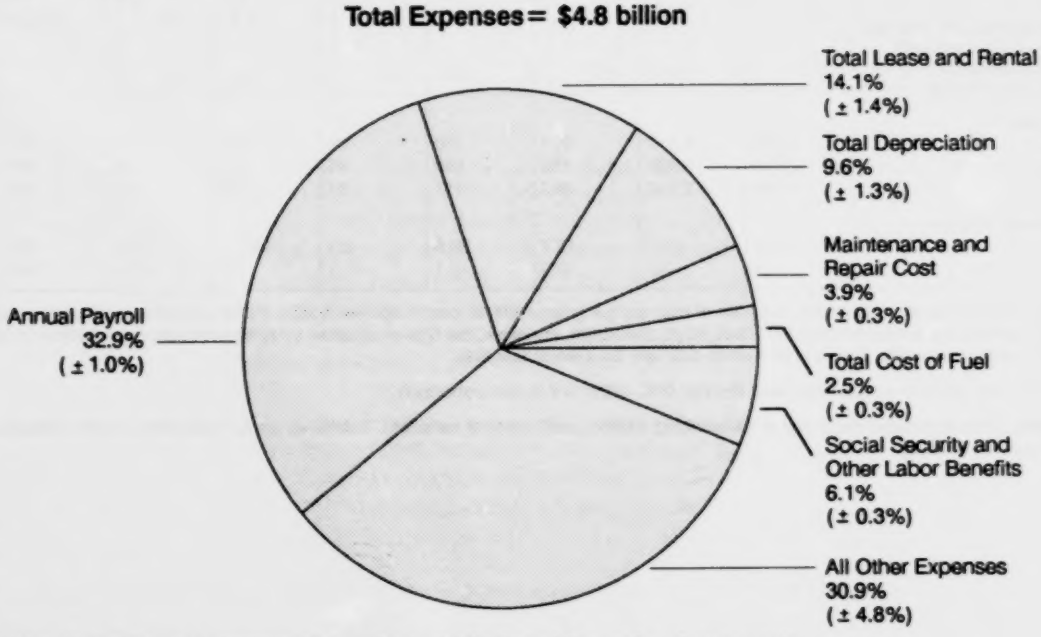
Public Warehousing Services (SIC 422): Estimated Percentages of 1988 Total Revenues, by Kind of Business


Total Revenues = $5.5 billion
Household Goods Warehousing and Storage (SIC 4224) 4.8% (± 1.5%)
Farm Product Warehousing and Storage (SIC 4221) 11.6% (± 2.3%)
Refrigerated Warehousing (SIC 4222) 22.6% (± 3.4%)
General Warehousing and Storage and Special Warehousing and Storage, Not Elsewhere Classified (SIC 4225 & SIC 4226) 61.0% (± 4.8%)

Note: See table 12 for estimated measures of sampling variability for public warehousing revenues. Percentages are accompanied by a 90-percent confidence interval. See Appendix A under Reliability of Data for further information on confidence intervals.

Figure 6.

Public Warehousing Services (SIC 422): Estimated Percentages of 1988 Operating Expenses


Total Expenses = $4.8 billion
Total Lease and Rental 14.1% (± 1.4%)
Total Depreciation 9.6% (± 1.3%)
Maintenance and Repair Cost 3.9% (± 0.3%)
Total Cost of Fuel 2.5% (± 0.3%)
Social Security and Other Labor Benefits 6.1% (± 0.3%)
All Other Expenses 30.9% (± 4.8%)
Annual Payroll 32.9% (± 1.0%)

Note: See table 12 for estimated measures of sampling variability for public warehousing expenses. Percentages are accompanied by a 90-percent confidence interval. See Appendix A under Reliability of Data for further information on confidence intervals.

Table 7. **Public Warehousing Services (SIC 422): Estimated 1986, 1987, and 1988 Revenues and Expenses, by Kind of Business**

Item	Total operating revenues	Operating expenses							
		Total operating expenses	Annual payroll	Employer contributions to Social Security/ other benefits	Cost of purchased fuels	Lease and rental payments	Purchased repairs	Depreciation	All other
Public warehousing (SIC 422)[1]									
Dollar volume (mil.)									
1988	5,498	4,836	1,590	294	120	683	187	465	1,497
1987	4,911	4,211	1,422	259	112	577	169	379	1,294
1986	4,750	4,131	1,433	269	124	(S)	171	358	1,219
Year-to-year percent change									
1988/1987	12.0	14.8	11.8	13.5	7.1	18.4	10.7	22.7	15.7
1987/1986	3.4	1.9	-0.8	-3.7	-9.7	(S)	-1.1	5.9	6.2
Refrigerated warehousing (SIC 4222)									
Dollar volume (mil.)									
1988	1,246	1,069	362	78	54	93	39	121	322
1987	1,231	1,017	343	76	51	84	40	114	309
1986	1,135	999	349	(S)	53	(S)	41	(S)	275
Year-to-year percent change									
1988/1987	1.2	5.1	5.5	2.6	5.9	10.7	-2.5	6.1	4.2
1987/1986	8.5	1.8	-1.7	(S)	-2.5	(S)	-2.2	(S)	12.3
Household goods warehousing and storage (SIC 4224)									
Dollar volume (mil.)									
1988	259	209	66	(S)	(S)	(S)	(S)	(S)	(S)
1987	251	196	58	9	(S)	28	(S)	(S)	(S)
1986	238	187	54	9	(S)	27	(S)	(S)	(S)
Year-to-year percent change									
1988/1987	3.2	6.6	13.8	(S)	(S)	(S)	(S)	(S)	(S)
1987/1986	5.2	4.7	8.1	-1.8	(S)	2.1	(S)	(S)	(S)
General warehousing and storage and special warehousing and storage, not elsewhere classified (SIC 4225, 4226)									
Dollar volume (mil.)									
1988	3,356	3,012	997	180	49	527	111	(S)	884
1987	2,812	2,488	862	149	45	431	95	189	717
1986	2,856	2,500	884	157	54	(S)	97	166	706
Year-to-year percent change									
1988/1987	19.3	21.1	15.7	20.8	8.9	22.3	16.8	(S)	23.3
1987/1986	-1.5	-0.5	-2.5	-5.1	-17.3	(S)	-2.3	14.2	1.5

S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to high sampling variability or poor response quality. These unpublished data are for internal use only.

[1]Totals include farm product warehousing and storage (SIC 4221) not shown separately.

Note: See table 12 for estimated measures of sampling variability (coefficients of variation). Estimates are not adjusted for price changes. Detail may not add to total due to rounding.

Table 8. **Trucking Services (SIC 421): Estimated Coefficients of Variation for 1986, 1987, and 1988 Revenue and Expense Estimates, and Estimates of Year-to-Year Ratios, by Type of Carrier**

Item	All carriers					Specialty freight carriers					General freight carriers				
	Dollar volume			Year-to-year ratio		Dollar volume			Year-to-year ratio		Dollar volume			Year-to-year ratio	
	1988	1987	1986	1988/1987	1987/1986	1988	1987	1986	1988/1987	1987/1986	1988	1987	1986	1988/1987	1987/1986
Operating Revenues															
Total	4.3	3.8	3.5	1.6	1.7	7.9	6.8	7.4	3.9	2.8	5.5	4.7	4.7	2.8	2.1
Motor carrier	4.1	3.7	3.3	1.6	1.8	7.4	6.0	7.0	3.9	2.7	5.4	4.7	4.6	2.8	2.1
Local trucking	4.2	5.2	6.8	3.6	4.4	9.7	9.3	11.4	5.3	6.5	11.0	9.9	11.1	7.6	6.7
Intercity trucking	5.3	4.8	4.1	1.7	2.0	10.2	8.1	7.5	4.7	2.2	5.3	4.9	4.8	2.6	2.2
Operating Expenses															
Total	4.4	3.7	3.6	1.8	1.6	8.6	7.0	7.7	4.0	2.7	5.5	4.6	4.7	2.8	2.1
Annual payroll	2.5	1.7	2.0	1.4	1.5	7.7	5.8	6.5	5.0	2.5	3.5	3.0	2.9	1.9	1.5
Employer contributions to Social Security and other supplemental labor benefits	2.3	1.5	1.9	1.8	1.6	6.8	5.5	5.9	7.4	2.9	2.9	2.7	2.7	2.4	1.7
Purchased fuels	5.5	4.2	3.5	2.4	2.2	6.9	4.4	3.9	6.2	3.7	7.8	6.2	5.3	3.8	2.7
Cost of purchased transportation	10.1	10.9	9.5	4.6	3.7	17.3	16.2	15.1	5.4	6.0	10.4	11.5	11.7	6.7	5.9
Lease and rental payments	6.1	6.5	7.0	6.1	6.8	12.8	11.3	11.5	6.8	6.4	10.8	11.8	11.8	10.7	10.6
Cost of insurance	4.9	3.9	4.7	4.3	2.4	6.9	5.6	6.7	6.2	3.9	8.5	5.4	7.2	6.8	3.7
Maintenance and repair costs	3.7	3.1	3.1	2.5	1.6	7.4	5.5	5.4	6.5	3.9	6.9	5.7	5.6	4.1	2.7
Depreciation	6.7	4.8	5.9	2.6	3.7	12.5	10.2	7.7	4.5	6.4	7.4	5.3	7.0	4.4	3.8
Taxes and licenses	8.7	8.3	5.8	2.8	3.8	10.8	9.4	9.2	6.6	5.9	9.1	10.3	7.9	4.3	4.5
Other operating expenses	4.8	3.2	4.8	2.9	3.9	8.6	8.5	9.9	3.1	6.2	8.1	5.7	5.1	4.7	5.2

Table 9. **Trucking Services (SIC 421): Estimated Coefficients of Variation for 1987 and 1988 Operating Expenses, by Type of Carrier**

Operating Expenses	All carriers				Specialty freight carriers				General freight carriers			
	Dollar volume (millions)		Percent of total operating expenses		Dollar volume (millions)		Percent of total operating expenses		Dollar volume (millions)		Percent of total operating expenses	
	1988	1987	1988	1987	1988	1987	1988	1987	1988	1987	1988	1987
Total	4.4	3.7	(X)	(X)	8.6	7.0	(X)	(X)	5.5	4.6	(X)	(X)
Annual payroll	2.5	1.7	2.3	2.5	7.7	5.8	4.7	4.9	3.5	3.0	2.5	2.8
Employer contributions to Social Security and other supplemental benefits	2.3	1.5	3.0	3.4	6.8	5.5	5.4	6.8	2.9	2.7	3.9	3.1
Purchased fuels	5.5	4.2	3.4	3.5	6.9	4.4	7.6	6.9	7.8	6.2	3.5	3.1
Trucks and motor vehicles	5.7	4.3	3.5	6.1	7.2	4.7	8.1	5.7	8.0	6.4	3.7	6.3
Heat, power, or generating electricity	5.9	6.2	5.4	5.2	14.3	(S)	11.4	(S)	6.6	5.3	5.5	6.3
Lease and rental payments	6.1	6.5	6.7	6.4	12.8	11.3	9.7	8.4	10.8	11.8	9.1	10.4
Buildings, structures, and offices	7.0	6.3	7.0	6.1	15.2	13.1	11.1	9.6	(S)	12.6	(S)	10.9
Machinery and equipment (except motor vehicles)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Cost of purchased transportation	10.1	10.9	6.1	8.3	17.3	16.2	10.5	10.8	10.4	11.5	6.4	7.4
Trucks and other motor vehicles rented or leased with drivers	12.1	(S)	8.4	(S)	18.2	(S)	11.3	(S)	11.6	(S)	8.4	(S)
Trucks and other motor vehicles rented or leased without drivers	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Other purchased transportation including railroads, airlines, water, and other motor carriers	10.4	9.7	10.4	10.2	(S)	(S)	(S)	(S)	11.1	8.9	9.7	7.8
Cost of insurance	4.9	3.9	4.5	3.0	6.9	5.6	5.7	6.7	8.5	5.4	6.4	2.1
Public liability and property damage insurance	5.9	4.9	6.6	4.7	7.8	7.6	7.4	9.6	10.9	6.4	9.9	3.0
Insurance for loss or damage to motor vehicles and their cargos	8.3	6.8	6.5	5.5	8.6	11.5	7.6	10.2	10.5	5.5	7.6	4.1
Insurance for buildings, structures, offices, and machinery and equipment (except motor vehicles)	7.7	6.8	6.5	6.4	16.3	13.5	13.7	12.5	10.7	11.1	9.2	11.3
Maintenance and repair costs	3.7	3.1	2.9	2.9	7.4	5.5	6.8	6.0	6.9	5.7	2.8	3.0
Motor vehicle parts for self-repair, including tires and tubes	5.3	3.7	4.0	3.9	10.0	7.5	9.4	8.3	7.5	6.8	4.1	4.9
Purchased repairs to trucks and other motor vehicles	4.5	4.5	1.9	3.1	8.4	6.9	8.9	6.3	9.4	8.1	6.8	5.5
Purchased repairs to buildings, structures, and offices	6.3	7.2	6.2	6.2	16.8	16.0	13.4	11.2	6.0	7.8	7.5	8.0
Purchased repairs to machinery and equipment (except motor vehicles)	10.9	9.7	12.0	11.5	(S)	(S)	(S)	(S)	(S)	13.1	(S)	14.1
Depreciation	6.7	4.8	3.7	3.2	12.5	10.2	8.2	7.1	7.4	5.3	3.5	2.8
Trucks and other motor vehicles	7.3	5.7	4.4	3.4	11.9	10.4	8.2	6.8	8.3	6.0	4.4	3.6
Buildings, structures, and offices	5.5	4.9	5.9	5.2	(S)	15.3	(S)	14.8	3.6	4.2	5.2	4.1
Machinery and equipment (except motor vehicles)	11.7	10.5	10.4	12.0	(S)	(S)	(S)	(S)	9.9	9.7	8.0	8.9
Taxes and licenses	8.7	8.3	6.7	7.0	10.8	9.4	10.0	8.1	9.1	10.3	5.8	8.5
Other operating expenses	4.8	3.2	4.1	3.8	8.6	8.5	6.6	6.0	8.1	5.7	4.8	4.4

S Data do not meet publication standards because of high sampling variability or poor response quality.
X Not applicable.

Table 10. **Trucking Services (SIC 421): Estimated Coefficients of Variation for 1987 and 1988 Estimates of Motor Carrier Revenues, by Size of Shipments and Commodities Handled**

Item	Dollar Volume		Year-to-year ratio 1988/1987
	1988	1987	
Motor carrier revenues	4.1	3.7	1.6
Size of shipments			
Truckload	6.3	5.7	2.6
Less-than-truckload	4.0	3.7	2.0
Commodities handled			
Agricultural and food products	13.5	15.0	4.9
Mining products, unrefined	(S)	(S)	(S)
Building materials	13.2	12.4	5.8
Forestry, wood, and paper products	13.1	11.1	8.3
Chemicals and allied products (except petroleum)	17.2	14.6	14.3
Petroleum and petroleum products	16.3	15.2	6.7
Metals and metal products	8.7	8.2	5.6
Household goods	11.0	13.4	5.4
Other manufactued products	8.5	8.0	3.3
All other goods	3.9	4.5	2.8

S Data do not meet publication standards because of high sampling variability or poor response quality.

Table 11. **Trucking Services (SIC 421): Estimated Coefficients of Variation for Estimates of Revenue Generating Freight Equipment as of December 31, 1986, 1987, and 1988, by Type of Carrier**

Equipment	All carriers			Specialty freight carriers			General freight carriers		
	Owned	Leased	Total	Owned	Leased	Total	Owned	Leased	Total
Trucks									
Units									
1988	4.0	18.3	4.4	9.2	(S)	8.5	7.1	(S)	8.5
1987	3.8	12.7	3.8	8.2	15.5	7.3	6.7	(S)	6.1
1986	4.3	13.3	4.6	9.6	(S)	9.6	5.9	(S)	6.1
Year-to-year ratio									
1988/1987	2.0	11.8	1.7	7.6	(S)	7.0	4.1	(S)	5.0
1987/1986	2.8	8.1	2.8	5.9	(S)	6.0	2.1	(S)	2.3
Truck-Tractors									
Units									
1988	9.0	12.2	8.3	(S)	(S)	14.2	7.9	17.6	8.6
1987	4.7	14.6	6.6	5.6	(S)	7.7	7.7	(S)	8.1
1986	4.7	12.1	5.4	5.9	(S)	7.8	6.8	14.5	6.1
Year-to-year ratio									
1988/1987	6.2	7.0	6.1	(S)	(S)	14.3	4.0	(S)	4.4
1987/1986	2.3	6.1	2.9	2.6	(S)	2.0	3.0	(S)	4.3
Trailers (full and semi)									
Units									
1988	5.9	13.0	5.6	8.8	(S)	8.7	8.2	15.2	7.6
1987	r4.8	9.6	r4.7	r8.3	(S)	r8.4	r7.1	13.1	r6.2
1986	4.1	9.5	3.9	7.2	(S)	7.8	5.1	(S)	4.6
Year-to-year ratio									
1988/1987	2.5	7.0	2.3	7.2	(S)	6.5	4.9	6.7	4.3
1987/1986	r2.6	9.6	r2.1	r4.1	(S)	r3.8	r3.8	(S)	r2.9

r Revised
S Data do not meet publication standards because of high sampling variability or poor response quality.

Table 12. Public Warehousing Services (SIC 422): Estimated Coefficients of Variation for 1988, 1987, and 1988 Revenue and Expense Estimates, and Estimates of Year-to-Year Ratios, by Kind of Business

Item	Total operating revenues	Operating expenses							
		Total operating expenses	Annual payroll	Employer contributions to Social Security/ other benefits	Cost of purchased fuels	Lease and rental payments	Purchased repairs	Depreciation	All other
Public warehousing (SIC 422)[1]									
Dollar volume									
1988	5.6	6.0	5.2	5.9	9.0	9.4	7.5	9.4	7.1
1987	5.7	6.1	4.7	5.2	9.6	10.3	8.8	6.5	7.9
1986	5.6	5.6	5.5	5.6	7.2	(S)	7.6	5.8	6.0
Year-to-year ratio									
1988/1987	3.3	3.2	2.8	2.3	4.9	3.3	4.0	10.1	3.9
1987/1986	3.7	3.7	3.4	3.7	5.5	(S)	7.4	5.0	4.0
Refrigerated warehousing (SIC 4222)									
Dollar volume									
1988	6.4	6.1	5.9	5.6	13.9	12.0	10.8	12.5	8.4
1987	7.2	7.7	5.0	5.8	16.0	12.7	12.2	12.2	12.1
1986	4.8	6.0	4.1	(S)	14.2	(S)	13.5	(S)	6.9
Year-to-year ratio									
1988/1986	3.9	4.3	3.4	2.7	6.4	11.4	8.4	3.2	8.7
1987/1986	6.1	5.2	4.3	(S)	6.7	(S)	9.5	(S)	8.7
Household goods warehousing and storage (SIC 4224)									
Dollar volume									
1988	18.5	19.6	20.8	(S)	(S)	(S)	(S)	(S)	(S)
1987	15.2	15.4	17.2	14.0	(S)	15.6	(S)	(S)	(S)
1986	9.8	10.0	10.3	8.1	(S)	13.6	(S)	(S)	(S)
Year-to-year ratio									
1988/1987	5.0	6.7	6.9	(S)	(S)	(S)	(S)	(S)	(S)
1987/1986	8.7	10.0	9.0	8.9	(S)	12.4	(S)	(S)	(S)
General warehousing and storage and special warehousing and storage, not elsewhere classified (SIC 4225, 4226)									
Dollar volume									
1988	9.7	10.3	8.1	9.6	16.4	12.4	13.0	(S)	12.8
1987	10.0	10.8	7.8	8.9	13.8	14.7	16.1	10.0	14.5
1986	8.8	8.9	8.2	8.6	9.4	(S)	11.4	8.2	9.7
Year-to-year ratio									
1988/1987	4.4	4.2	3.1	3.3	6.7	4.1	5.9	(S)	5.8
1987/1986	5.8	6.3	5.0	6.0	10.7	(S)	11.5	4.7	7.9

S Data do not meet publication standards because of high sampling variability or poor response quality.

[1]Totals include farm product warehousing and storage (SIC 4221) not shown separately.

APPENDIX A. EXPLANATORY MATERIAL

DEFINITION OF TERMS

Firm. A business organization consisting of one or more domestic establishments/locations under common ownership or control.

Operating Revenues. Charges or billings for services rendered and any sales of merchandise during 1988, even though payment may have been received at a later date. Revenues do not include sales taxes or other taxes collected from customers and remitted directly by the firm to a local, State, or Federal tax agency; nor do they include nonoperating receipts such as income from investments, loans, the sale of securities, real estate, etc. The sources of revenues requested on the questionnaires were:

a. *Motor carrier revenues.* Charges or billings for the transportation of freight by motor vehicles including the rental and leasing of vehicles with drivers.

b. *Commissions (trucking firms only.)* Fees for providing brokerage services, making payroll deductions, and collecting freight charges for other carriers. Booking, origin, and packing commissions of household goods carrier are also included.

c. *Lease and rental revenues (trucking firms only.)* Charges or billings for the short-term rental or extended-term leasing (with or without maintenance) of trucks, truck-tractors, or trailers, without drivers.

d. *Warehousing and storage revenues.* Charges or billings for the storage of shipments in transit, or for permanent or regular storage. Included are rental receipts from the operation of mini-warehouses and self-service storage facilities. Revenues from subleasing warehousing space to others are excluded.

e. *Warehouse handling revenues.* Amounts charged or billed separately for labor, packing and crating, handling, loading and unloading, and other accessory services.

f. *Terminal facilities revenue (trucking firms or terminal operators only.)* Amounts charged or billed to other carriers for the use of terminal facilities operated by the company, including amounts billed separately for repair services. Revenues received from other operating units of the company are excluded.

g. *Sales of merchandise (warehousing firms only).* Total sales of merchandise owned by this firm.

h. *Commissions and fees (warehousing firms only).* Commissions or brokerage fees from the sale of merchandise owned by others.

i. *All other operating revenues:*

- *Trucking firms.* Included are sales from the operation of lunchrooms and restaurants, receipts from parking and storage of vehicles, and snowplow work. The value of used equipment or vehicles sold, as well as revenues received from any equity or full-payout leasing arrangement (finance leasing); and nonoperating receipts, such as income from investments, loans, the sale of securities, real estate, etc., are excluded.
- *Warehousing firms.* Included are receipts from compressing, bailing, etc., and the leasing of vehicles without drivers. The value of used equipment or vehicles sold, as well as revenues received from any equity or full-payout leasing arrangement (finance leasing); and nonoperating receipts, such as income from investments, loans, the sale of securities, real estate, etc., are excluded.

Operating Expenses. Costs incurred during 1988, even though payment may have been made at a later date. Interest on loans and sales taxes and other taxes collected from customers and paid directly to a taxing authority were excluded. The types of expenses requested on the questionnaires were:

a. *Annual payroll.* All salaries, wages, commissions, bonuses, and allowances for vacation, holiday, and sick leave paid to employees in 1988. For corporations, it includes amounts paid to officers and executives; for unincorporated businesses, it does not include payments to proprietors or partners. Annual payroll is reported before employee deductions for Social Security , withholding taxes, insurance, union dues, etc.

b. *Employer contributions for Social Security and other supplemental labor benefits.* The employer's cost for all legally required and voluntary employee fringe benefit programs, including employer's Social Security contributions, unemployment compensation, worker's life and health insurance premiums, pension plans, stock purchases for employees, etc.

c. *Cost of purchased fuels.* The cost of gasoline and other fuels (including all applicable Federal and State gasoline, diesel fuel, and oil taxes) used for trucks and other motor vehicles. Warehousing firms also included fuels consumed for heat, power, or generating electricity; trucking firms reported these costs separately.

d. *Cost of purchased transportation (trucking firms only):*

1. *Trucks and other motor vehicles rented or leased with drivers from agents.* Payments made to agents for furnishing trucks, truck-tractors, or tractor-trailers with drivers for the exclusive use and control of the firm.

2. *Trucks and other motor vehicles rented or leased with drivers, except from agents.* Payments made to other carriers (except agents) for the rental or leasing of trucks, truck-tractors, or tractor-trailers with drivers for the exclusive use and control of the firm.

3. *Trucks and other motor vehicles rented or leased without drivers.* Payments made to other carriers for the rental or leasing of trucks, truck-tractors, or tractor-trailers without drivers for the exclusive use and control of the firm.

4. *Other purchased transportation.* The cost of other purchased transportation, including payments for individual shipments and part loads in the vehicle of other carriers when the hauling carrier retains control of the vehicle and driver; payments to railroads, water carriers, and others for the transportation of this firm's loaded or empty vehicles and containers; and payments for the delivery of small shipments by parcel post or messenger.

e. *Lease and rental payments for buildings, structures, and offices.* Payments made to other companies for the rental or leasing of buildings, structures, and offices under either a capital or operating lease. Payments made under a capital lease were reported as the actual amount paid to the lessor, not the value estimated for depreciation of the capital lease. Payments for the use of depreciable assets owned by a parent company or subsidiary were excluded.

f. *Lease and rental payments for machinery and equipment.* Payments made to other companies for the rental and leasing of machinery and equipment under either a capital or operating lease. Payments made under a capital lease were reported as the actual amount paid to the lessor, not the value estimated for depreciation of the capital lease. Warehousing firms included payments for the rental and leasing of motor vehicles. Trucking firms reported these payments under purchased transportation. Payments for use of depreciable assets owned by a parent company or subsidiary were excluded.

g. *Cost of insurance (trucking firms only):*

1. *Public liability and property damage insurance.* The net cost (premiums less dividends or refunds) of commercial insurance to protect the company against liability for deaths or injuries of persons (other than employees) and damages to property of others resulting from the operation of owned and leased vehicles.

2. *Insurance for loss or damage to motor vehicles and their cargos.* The net cost of commercial insurance to protect the company against liability for claims resulting from loss, damage, or delay of property entrusted to it for transportation or storage; and losses from fire, theft, or collision damage to owned or leased vehicles.

3. *Insurance for buildings, structures, offices, and machinery and equipment (other than trucks and other motor vehicles).* The net cost of commercial insurance to protect the company against loss or damage to buildings, structures, offices, machinery, and equipment (other than motor vehicles) caused by fire, flood, wind, boiler explosion, or any other cause.

h. *Maintenance and repair costs:*

1. *Motor vehicle parts for self-repair, including tires and tubes (trucking firms only).* The amount paid for tires and tubes and parts used in repairs to company owned or leased vehicles by company employees.

2. *Purchased repair services for trucks and other motor vehicles (trucking firms only).* The amount paid to others for repair of company owned or leased vehicles, including parts and labor. Repairs performed on leased assets and paid for under the lease agreement and improvements for which depreciation accounts are ordinarily maintained were excluded.

3. *Purchased repairs for buildings, structures, and offices.* The amount paid to others for repair of company owned or leased buildings, structures, and offices. Repairs performed on leased assets and paid for under the lease agreement, and improvements for which depreciation accounts are ordinarily maintained were excluded.

4. *Purchased repairs for machinery and equipment.* The amount paid to others for repair of company owned or leased machinery and equipment. Repairs performed on leased assets and paid for under the lease agreement, and improvements for which depreciation accounts are ordinarily maintained were excluded. Warehousing firms reported repairs to motor vehicles here; trucking firms reported these costs in 1 and 2 above.

i. *Depreciation:*

1. *For buildings, structures, and offices.* Depreciation charges against depreciable assets (except machinery and equipment), including depreciation on assets leased to others under a capital lease agreement. These charges are not adjusted for the value of depreciable assets sold or traded for replacement purposes.

2. *For machinery and equipment.* Depreciation charges for machinery and equipment including depreciation on vehicles leased to others under a capital lease agreement. Warehousing firms included depreciation of motor vehicles with other machinery and equipment. Trucking firms reported these charges separately. These charges are not adjusted for the value of depreciable assets sold or traded for replacement purposes.

j. *Taxes and licenses.* Payments to Federal, State, and local governments for vehicle licensing and registration, tolls, and other vehicle use taxes. It does not include gasoline, diesel fuel, or oil taxes, nor real estate or personal property taxes.

k. *All other operating expenses.* Payments for real estate and personal property taxes, the cost of purchased utilities and communication services, advertising, office supplies, losses by damage or theft not covered by insurance, bad debt losses, etc. Interest on loans, as well as sales taxes and other taxes collected directly from customers and paid directly to a taxing authority were excluded.

Classification of Carrier

a. *Specialty freight.* Carriers that are limited to transporting articles which, because of their size, shape, weight, or other inherent characteristics, require special equipment for loading, unloading, or transporting. These commodities include:

- Household goods
- Heavy machinery
- Petroleum products
- Refrigerated products
- Agricultural commodities
- Motor vehicles
- Building materials
- Dangerous or hazardous materials
- Forest products

b. *General freight.* Carriers capable of handling a wide variety of commodities including all or some of those listed above.

Local Trucking. Carriers primarily engaged in furnishing trucking or transfer services, with or without storage, within a city, town, or other local area including adjoining municipalities or suburban areas.

Intercity Trucking. Carriers primarily engaged in furnishing "over the road" trucking services either as a common carrier or under special or individual contract or agreement.

Less-Than-Truckload. Shipments with an actual weight of less than 10,000 pounds.

Truckload. Shipments with an actual weight of 10,000 pounds or more.

Commodities Handled

a. *Agricultural and food products.* Includes live animals (cattle, horses, poultry, hogs, etc.), seafood, fresh farm products (grain, flowers, nursing stock, raw milk, etc.), and processed food and tobacco products (canned goods, prepared meats, frozen foods, beverages, cigarettes, etc.).

b. *Mining products, unrefined.* Includes crude oil, coal and metal ores.

c. *Building materials.* Includes gravel, sand, concrete, flat glass, etc. Excludes cut lumber.

d. *Forestry, wood, and paper products.* Includes logs and forest products, lumber and fabricated wood products (except furniture), paper and paper products.

e. *Chemicals and allied products (except petroleum).* Includes chemicals and drugs (fertilizers, pesticides, cosmetics, paints, etc.), plastics, and rubber products.

f. *Petroleum and petroleum products.* Includes paving and roofing materials.

g. *Metals and metal products.* Includes primary metal products (pipes, ingots, billets, sheets, etc.), fabricated metal products, machinery, and transportation equipment and parts.

h. *Household goods.* Includes household and office furniture from homes, offices, etc.

i. *Other manufactured products.* Includes furniture and hardware (not involved in household moving), glass products, textiles and apparels (fibers, leather products, carpets, clothing, etc.), and miscellaneous manufactured products (photographic goods, watches, clocks, jewelry, toys, etc.).

j. *All other.* Includes scrap, garbage, trash, septic tank waste, industrial water, mixed cargo (including delivery of small packages), etc.

SAMPLE DESIGN

The Motor Freight Transportation and Warehousing Survey is based on a probability sample, selected from employers contained on the Census Bureau's Standard Statistical Establishment List (SSEL). The SSEL includes all employer businesses that make Social Security payments for employees under the Federal Insurance Contributions Act (FICA). The sample is updated quarterly to account for new employer businesses (births) and employers which go out of business (deaths). The sample was originally drawn from establishments on the SSEL as of December 31, 1984. The SSEL consisted of two lists. One list was composed of all Employer Identification (EI) numbers for businesses with reported payroll for at least one quarter of 1984. The EI number is the primary taxpayer identifier used by employer business firms. The second list consisted of all establishments of known multiestablishment companies as of December 31, 1984. These lists contained information on sales or receipts, payroll, employment, name and address, kind-of-business classification, etc.

Before the sampling frame was available, a study was made using files from the 1983 SSEL and 1982 Census of Service Industries. This study determined the stratification of the sampling units based on payroll and kind of business, and the optimal allocation of the sample necessary to meet specified sampling variability objectives for revenues of different kind-of-business groups. The primary stratum boundary determined in the study was the certainty cutoff to be used for each kind of business. The cutoff was particularly important since it often determined the type of sampling unit.

The sampling units consist of both companies and EI's. If a company had total revenues (estimated from payroll) above the corresponding cutoff for its major kind of business or total revenues for any minor kind of business above the corresponding cutoff for the minor kind of business, the company was selected into the sample with certainty. The company, which might consist of many EI's, was then the sampling unit; therefore, any new establishments that the company might acquire, even if under new or different EI's, were in the sample with certainty. The EI was the sampling unit for all single-establishment companies, whether or not selected with certainty. All multiestablishment companies not selected with certainty were treated on an EI basis; that is, the EI was the sampling unit.

To be eligible for the initial sampling, an EI had to be active, (i.e., had payroll in 1984 and was on the latest available Internal Revenue Service (IRS) active mailing list for FICA taxpayers). The EI's were then stratified according to their major kind of business and their estimated revenues. Within each stratum, a simple random sample of EI's was selected. The sampling rates for these strata varied between 1 in 3 and 1 in 330.

For all EI "births" after the initial selection, a two-phase selection procedure is used. EI births are new EI's recently assigned by the IRS and on the latest available IRS mailing list for FICA taxpayers. In the first phase, births are arranged by kind of business and size (expected employment or quarterly payroll). A relatively large sample is then drawn and canvassed in order to obtain a more reliable measure of size (revenues of two recent months) and to correct or obtain a more detailed kind-of-business code, if needed.

Using this more reliable information, the births selected in phase one are subjected to probability proportional-to-size sampling with overall probabilities equivalent to those used in drawing the initial sample from the 1984 SSEL. Because of the lag in identifying births and the time needed to accomplish the two-phase birth selection procedure, births are actually added to the sample on an average of 12 to 18 months after they begin operation. The birth selection procedure is carried out quarterly.

To be eligible for the sample canvass and tabulation, a business must meet both of the following requirements:

a. It must be on the latest available IRS mailing list for FICA taxpayers from the previous quarter.

b. It must have been selected from either the SSEL or the file of employer births.

In the case of businesses that were selected into the sample with certainty, the first requirement is changed. These sampling units are not dropped from canvass and tabulation if they are no longer on the IRS mailing list. Rather, these businesses are contacted, and if there are successor businesses, they are added to the survey.

In order to account for births during the period between the onset of activity and the time of birth selection, the imputation procedure estimates a full year of data for all cases which go out of business but which are still active on the IRS mailing list.

RELIABILITY OF DATA

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. Sampling errors occur because observations are made on a sample, not on the entire population. Nonsampling errors can be attributed to many sources in the collection and processing of the data. The accuracy of a survey result is determined by the joint effect of sampling and nonsampling errors.

MEASURES OF SAMPLING VARIABILITY

Because the estimates were based on a sample, exact agreement with the results that would be obtained from a complete census of the trucking and warehousing industries using the same enumeration procedure was not expected. However, because each firm in the United States in the specified Standard Industrial Classifications

(SICs) had a chance of being selected for the sample and because the probability of selection for each firm in the sample was known, it was possible to estimate the sampling variability of the estimates made from the sample.

The standard error of the estimate is a measure of the variability among the estimates from all possible samples of the same size and design and, thus, is a measure of the precision with which an estimate from a particular sample approximates the results of a complete enumeration. The coefficient of variation (expressed as a percent) is the standard error of the estimate times 100 percent divided by the value being estimated. Note that measures of sampling variability, such as the standard error or coefficient of variation, are estimated from the sample and are also subject to sampling variability. Coefficients of variation for dollar volume estimates and year-to-year changes are shown in tables 8 through 12.

The coefficients of variation presented in these tables permit certain confidence statements about the sample estimates. The particular sample used in this survey was one of a large number of samples of the same size that could have been selected using the same design. In about two out of three of these samples, the estimates would differ from a complete enumeration by less than the corresponding percentages for that estimate shown in the sampling variability tables. In about 9 out of 10 of these samples, the estimates would differ from the results of a complete enumeration by less than 1.65 times the percentages shown.

To illustrate the computations involved in the above confidence statements as related to dollar volume estimates, assume that an estimate of revenues published in table 1 is $10,750 million for a particular year and that the coefficient of variation for this estimate, as given in table 8 is 1.8 percent, or 0.018. Multiplying $10,750 million by 0.018 yields $194 million. Therefore, a 67-percent confidence interval is $10,556 million to $10,944 million ($10,750 million plus or minus $194 million). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately 2 out of 3 (67-percent) of the intervals would contain the figure obtained from a complete enumeration. Typical practice is to construct a 90 or 95-percent confidence interval. Using the same illustration, a 90-percent confidence interval would be $10,430 million to $11,070 million ($10,750 million plus or minus $320 million).

Some comparisons appearing in the introduction under Summary of Data are accompanied by a 90-percent confidence interval. Thus, a statement such as "up 0.8 percent (± 1.3 percent)" indicates a 90-percent confidence interval from -0.5 to + 2.1. When the confidence interval contains zero (as in this example), it is uncertain whether there is actually an increase or decrease.

NONSAMPLING ERRORS

As calculated for this report, the coefficient of variation measures sampling errors but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated.

Nonsampling errors can be attributed to many sources: (1) inability to obtain information about all cases in the sample, (2) response errors, (3) definitional difficulties, (4) differences in the interpretation of questions, (5) mistakes in recording or coding the data obtained, and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses.

Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

The major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which failed edit. For all kinds of business combined, imputed revenues amount to about 14 percent of the national revenue estimates.

Appendix B. Kind-of-Business Classifications

The motor freight transportation and warehousing industries included in this report are classified in accordance with the 1972 edition of the *Standard Industrial Classification Manual,* and the 1977 supplement, issued by the Office of Management and Budget for purposes of providing a standard for the classification and presentation of data by all Federal agencies. Each establishment, firm, or organization is classified according to the major service (determined by the volume of revenues) it provides. Establishments, firms, and organizations owned and operated by Federal, State, or local governments are excluded. The following is a description of each kind-of-business classification presented in this report.

TRUCKING, LOCAL AND LONG DISTANCE (SIC 421)

Establishments primarily engaged in furnishing trucking or transfer services within a city, town, or other local area including adjoining municipalities or suburban areas, with or without storage, or furnishing "over-the-road" trucking services either as common carriers or under special and individual contracts or agreements.

PUBLIC WAREHOUSING (SIC 422)

Establishments primarily engaged in the storage of farm products, furniture and other household goods, or commercial goods of any nature.

Farm Product Warehousing and Storage (SIC 4221)

Establishments primarily engaged in the storage of farm products, including cotton compresses and warehouses, grain elevators, tobacco warehouses, etc.

Refrigerated Warehousing (SIC 4222)

Establishments primarily engaged in the storage of perishable goods under refrigeration. The establishments may also rent locker space for the storage of food products for individual households, and provide incidental services for processing, preparing, or packaging such food for storage.

Household Goods Warehousing and Storage (SIC 4224)

Establishments primarily engaged in the storage of furniture and other household goods, but not engaged in local trucking.

General and Special Warehousing and Storage (SIC 4225, 6)

Establishments primarily engaged in the warehousing and storage of a general line of goods, or in the storage of special products, not elsewhere classified, such as automobiles (dead storage only), furs (for the trade), textiles, whiskey, and goods at foreign trade zones.

Terminal and Joint Terminal Maintenance Facilities For Motor Freight Transportation (SIC 4231)

Establishments primarily engaged in the operation of terminal facilities used by highway-type property carrying vehicles operated by others. Also included are such terminal establishments which also provide maintenance and service for motor vehicles operated in common or contract property carrying service by others.

Appendix C. Report Forms

B-524

OMB No. 0607-0510; Approval Expires 12/31/89

Public reporting burden for this collection of information is estimated to average 1.5 hours per response, including the time for assembling data from existing records and completing the form. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Associate Director for Management Services, Bureau of the Census, Room 2027, Washington, DC 20233; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503. *PLEASE INCLUDE FORM NAME AND NUMBER IN ALL CORRESPONDENCE.*

PENALTY FOR FAILURE TO REPORT
DUE DATE: 30 DAYS AFTER RECEIPT OF FORM

NOTICE — Response to this inquiry is required by law (title 13, U.S. Code). By the same law, your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

In correspondence pertaining to this report, please refer to the IDENTIFICATION Number shown below.

FORM B-524 (4-26-88)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

1988
MOTOR FREIGHT TRANSPORTATION AND WAREHOUSING SURVEY

BUREAU OF THE CENSUS
1201 East Tenth Street
Jeffersonville, IN 47132

IF BOOK FIGURES ARE NOT AVAILABLE, CAREFULLY PREPARED ESTIMATES ARE ACCEPTABLE.

(Please correct any error in name, address, and ZIP Code)

ITEM 1 ORGANIZATIONAL STATUS — *Mark (X) the ONE box which best describes this company during 1988.*

0 ☐ Corporation
1 ☐ Individual proprietorship
2 ☐ Partnership
5 ☐ Governmental — Specify
9 ☐ Other — Specify

ITEM 2 NUMBER OF ESTABLISHMENTS

Enter the total number of warehousing and motor freight transportation establishments operated by this company as of December 31, 1988. → Key code 503

ITEM 3 OPERATING REVENUES

Please read all instructions carefully before completing this item, including the SURVEY COVERAGE and REPORTING INSTRUCTIONS on the REVERSE SIDE of this report.

Line A — Report warehousing and storage revenues only. Include rental receipts from the operation of mini-warehouses and self-service storage facilities. **Exclude** revenues from the subleasing of warehousing space to others.

Line B — Report all amounts billed separately for labor, packing and crating, handling, accessory services, etc.

Line C — Report total sales of merchandise owned by this company.

Line D — Report all commission or brokerage fees received from the sale of merchandise owned by others.

Line E — Report all revenues from the transportation of property by motor vehicles. Include revenues from furnishing vehicles **with** drivers to other carriers under lease or similar arrangement.

Line F — Report all other operating revenues, including receipts from services such as compressing, baling, etc., and the rental and leasing of vehicles without drivers. **Exclude** the value of used equipment or vehicles sold, and non-operating receipts such as income from investments, the sale of securities, real estate, etc. **NOTE: If the amount reported on this line is greater than 50 percent of the total operating revenues reported in line G, indicate the source of these revenues in the remarks section on the back of this form.**

Line G — Report the sum of Lines A through F.

	Key code	1988 Mil.	Thou.	Dol.
A. Warehousing and storage revenues	509			
B. Warehouse handling revenues	802			
C. Sales of merchandise owned by this firm	807			
D. Commissions and fees	808			
E. Motor carrier freight revenues	505			
F. All other operating revenues	810			
G. TOTAL OPERATING REVENUES	811			

ITEM 4 PERCENTAGE OF WAREHOUSE STORAGE AND HANDLING REVENUES BY TYPE OF GOODS

Report the percentage of this company's warehouse storage and handling revenues (the sum of lines 3A and 3B) attributable to household goods in line A, and the percentage attributable to all other goods in line B. (Note: The sum of lines A and B should equal 100 percent.)

Estimates are acceptable if book figures are not available	Key code	Percent
A. Household goods	831	%
B. All other goods	832	%

ITEM 5 PAYROLL AND OPERATING EXPENSES

Please read all instructions carefully before completing this item, including the SURVEY COVERAGE and REPORTING INSTRUCTIONS on the REVERSE SIDE of this report.

Line A — Report the gross earnings paid in 1988 to employees prior to such deductions as employees Social Security contributions, withholding taxes, group insurance premiums, union dues, savings bonds, etc. Include all wages, salaries, commissions, dismissal pay, paid bonuses, vacation and sick leave pay, and the cash equivalent of compensation paid in kind. If a corporation, include salaries of officers; if an **unincorporated** concern, **exclude** payments to proprietors or partners.

Line B — Report employer's cost for legally required and voluntary employee fringe benefit programs. Include employer's Social Security contributions, unemployment compensation, worker's compensation insurance, insurance premiums on hospital and medical plans, life insurance premiums, pension plans, stock purchase plans, etc. Estimates are acceptable if book figures are not available.

Line C — Report the cost of gasoline and other fuels, including all applicable Federal and State gasoline, diesel fuel, and oil taxes. Also include the cost of purchased fuels consumed for heat, power, or generating electricity.

Line D — Report payments made to other companies for the rental and leasing of buildings, structures, and offices in Line D(1), and for machinery and equipment in Line D(2). Include payments for leased assets under either a capital or operating lease. Payments made under a capital lease should be reported as the actual amount paid to the lessor, not the value estimated for depreciation of the capital lease. **Exclude** payments for use of depreciable assets owned by a parent company or subsidiary.

Line E — Report the amount of purchased repairs to buildings, structures, and offices in Line E(1), and to machinery and equipment in Line E(2). **Exclude** repairs performed on leased buildings or equipment and paid for under the lease agreement, and improvements for which depreciation accounts are ordinarily maintained.

Line F — Report the amount of depreciation and amortization charges against depreciable assets owned by your company. Report separately the amount of depreciation for buildings, structures, and offices in Line F(1), and for machinery and equipment in Line F(2). Include depreciation on assets rented or leased to others by you under an operating lease agreement. **Exclude** depreciation on assets leased to others by you under a capital lease agreement. Do not adjust for the value of depreciable assets sold or traded for replacement purposes.

Line G — Report other operating expenses not reported in Lines A through F. Include real estate and personal property taxes, vehicle licensing and registration, the cost of purchased utilities and communication services, advertising, office supplies, losses by damage, theft, or destruction not covered by insurance, bad debt losses, etc. **Exclude** interest on loans, as well as sales taxes and other taxes collected directly from customers and paid directly to a taxing authority. **NOTE: If the amount reported on this line is greater than 50 percent of the total operating expenses reported in line H, indicate the source of these expenses in the remarks section on the back of this form.**

Line H — Report the total of Lines A through G.

	Key code	Mil.	Thou.	Dol.
A. Annual payroll	512			
B. Employer contributions to Social Security and other supplemental labor benefits	513			
C. Cost of purchased fuels	839			
D. Lease and rental payments				
(1) Buildings, structures, and offices	844			
(2) Machinery and equipment	845			
E. Cost of purchased repairs				
(1) Buildings, structures, and offices	851			
(2) Machinery and equipment	852			
F. Depreciation				
(1) Buildings, structures, and offices	853			
(2) Machinery and equipment	854			
G. All other operating expenses	855			
H. TOTAL OPERATING EXPENSES	822			

CONTINUE ON REVERSE →

REPORT PERIOD

Mark (X) the one box which best describes the period covered by your report. If the data reported in items 3, 4 and 5 are for a period other than the "calendar year," please enter the beginning and ending dates.

1 ☐ Calendar year — *Go to item 7*
2 ☐ Fiscal year
3 ☐ Less than 12 months

	Key code	1988 Month	Day	Year
From	836			
To	837			

OWNERSHIP OR CONTROL

a. Does another company own more than 50 percent of the voting stock or have the power to control the management and policies of this company? 1 ☐ YES → 2 ☐ NO — Continue with item 7b

Name of owning or controlling company
Number and street
City, State, and ZIP Code
EI Number →

b. Did this company acquire or merge with another company in 1988? 1 ☐ YES → 2 ☐ NO — Continue with item 8

Name of company acquired or merged with
Number and street
City, State, and ZIP Code
Date of merger or acquisition → Month Year
EI Number →

SURVEY COVERAGE

This report covers all domestic establishments operated by your company primarily engaged in providing warehousing services and commercial motor freight transportation, as listed below. **Exclude** subsidiaries or operating units which have been requested to submit separate Motor Freight Transportation and Warehousing Survey Report forms to the Bureau of the Census.

Public Warehousing — Establishments primarily engaged in the storage of farm products; perishable goods under refrigeration; household goods; a general line of goods; or special goods such as automobile dead storage, furs for the trade, textiles, whiskey, or goods at foreign trade zones. Mini-warehouses and self-service storage facilities are also included.

Trucking, Local and Long Distance — Establishments primarily engaged in furnishing trucking or transfer services with or without storage within a city, town, or other local area including adjoining municipalities or suburban areas; or in furnishing "over the road" trucking services other as common carriers or under special or individual contracts or agreements.

If your activities do not appear to be covered by this survey, please describe your kind of business in the "Remarks" section.

REPORTING INSTRUCTIONS

Please read all instructions and complete all items in the report. This will save on costly and time-consuming correspondence.

- Report only for those establishments (physical locations) primarily engaged in the activities defined in the coverage section.
- For establishments sold or acquired during 1988, report only for the period that the locations were operated by this company.
- Report data for the calendar year 1988 if calendar year records are not available, data for the latest fiscal year will be accepted. Indicate the period covered in item 3. Please note, however, that estimates for the calendar year are preferable to book figures covering a different time period.
- For operating revenues, report all charges or billings for services rendered and any sales of merchandise, during 1988, even though payments may have been received at a later date. **Exclude** sales taxes or other taxes collected from customers and paid directly to a taxing authority. **Exclude** nonoperating revenues such as income from investments, loans, and the sale of securities or real estate. Also **exclude** revenues from a parent organization, franchise locations owned by others, and any franchise or license fees.
- For operating expenses, report costs incurred during 1988 even though payments may have been made at a later date. **Exclude** interest on loans, as well as sales taxes or other taxes collected from customers and paid directly to a taxing authority.
- Definitions for total annual payroll are the same as those used on the Employer's Quarterly Federal Tax Return, Treasury Form 941.
- Report dollar values in whole dollars (omit cents).
- If book figures are not available, carefully prepared estimates are acceptable. Enter "0" in items where applicable.
- Revenues derived from services provided on a contractual basis should be prorated according to the work accomplished. (Only include the amounts applicable to the report period.)

SAMPLE

REMARKS — *Please use this space for any explanations that may assist in understanding your reported data.*

CERTIFICATION — This report is substantially accurate and has been prepared in accordance with instructions.

Name of person to contact regarding this report	Address *(Number and street, city, State, ZIP Code)*	Telephone Area code	Number	Extension

Signature of authorized person	Title	Date

FORM B-524 (8-26-88)

B-514

OMB No. 0607-0810: Approval Expires 12/31/89

Public reporting burden for this collection of information is estimated to average 2.5 hours per response, including the time for assembling data from existing records and completing the form. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Assistant Director for Management Services, Bureau of the Census, Room 2027, Washington, DC 20233; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503. PLEASE INCLUDE FORM NAME AND NUMBER IN ALL CORRESPONDENCE.

NOTICE — Response to this inquiry is required by law (title 13, U.S. Code). By the same law, your report to the Census Bureau is confidential. It may be seen only by sworn Census employees, and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

PENALTY FOR FAILURE TO REPORT
DUE DATE: 30 DAYS AFTER RECEIPT OF FORM

In correspondence pertaining to this report, please refer to the IDENTIFICATION Number shown below.

108 [ ] 1 ☐ M 2 ☐ T

Form B-514 (12-9-88)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

1988 MOTOR FREIGHT TRANSPORTATION AND WAREHOUSING SURVEY

BUREAU OF THE CENSUS
1201 East Tenth Street
Jeffersonville, IN 47132

IF BOOK FIGURES ARE NOT AVAILABLE, CAREFULLY PREPARED ESTIMATES ARE ACCEPTABLE.

(Please correct any error in name, address, and ZIP Code)

SURVEY COVERAGE

This report covers all domestic establishments operated by your company and its subsidiaries primarily engaged in providing commercial motor freight transportation or warehousing services as listed below. Exclude subsidiaries or operating units which have been requested to submit separate Motor Freight Transportation and Warehousing Survey Reports to the Bureau of the Census.

- Local Trucking — Establishments primarily engaged in furnishing trucking or transfer services, with or without storage, within a city, town, or other local area including adjoining municipalities or suburban areas.
- Intercity Trucking — Establishments primarily engaged in furnishing "over-the-road" trucking services either as common carriers or under special or individual contracts or agreements.
- Public Warehousing — Establishments primarily engaged in the storage of farm products; perishable goods under refrigeration; household goods; a general line of goods; or special goods such as automobile dead storage, furs for the trade, textiles, whiskey, or goods at foreign trade zones. Mini-warehouses and self-service storage facilities are also included.
- Terminal and Joint Terminal Maintenance Facilities for Motor Freight Transportation — Establishments primarily engaged in the operation of terminal facilities used by highway-type property carrying vehicles operated by others.

If your activities do not appear to be covered by this survey, please describe your kind of business in the "Remarks" section.

REPORTING INSTRUCTIONS

Please read all instructions and complete all items in this report. This will save on costly and time-consuming correspondence.

- Report only for those establishments (physical locations) primarily engaged in the activities defined in the coverage section.
- For establishments sold or acquired during 1988, report only for the period that the locations were operated by this company.
- Report data for the calendar year 1988. If calendar year records are not available, data for the latest fiscal year may be accepted. Indicate the period covered in item 8. Please note, however, that estimates for the calendar year are preferable to book figures covering a different time period.
- For operating revenues, report all charges or billings for services rendered and any sales of merchandise during 1988 even though payments may have been received at a later date. Exclude sales taxes and other taxes collected from customers and paid directly to a taxing authority. Exclude nonoperating revenues such as income from investments, loans, the sale of securities or real assets. Also exclude revenues from a parent organization, franchise locations owned by others, and any franchise or license fees.
- For operating expenses, report costs incurred during 1988 even though payments may have been made at a later date. Exclude interest on loans, as well as sales taxes or other taxes collected from customers and paid directly to a taxing authority.
- Definitions for annual payroll are the same as those used on the Employer's Quarterly Federal Tax Return, Treasury Form 941.
- Report dollar values in whole dollars (omit cents).
- If book figures are not available, carefully prepared estimates are acceptable. Enter "0" in items where applicable.
- Revenues derived from services provided on a contractual basis should be prorated according to the work accomplished. (Only include the amounts applicable to the report period.)

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ITEM 1 ORGANIZATIONAL STATUS

Mark (X) the ONE box which best describes this company during 1988.

0 ☐ Corporation
1 ☐ Individual proprietorship
2 ☐ Partnership
3 ☐ Governmental — *Specify*
9 ☐ Other — *Specify*

ITEM 2 CLASSIFICATION OF CARRIER (FOR MOTOR FREIGHT CARRIERS ONLY. ALL OTHERS SKIP TO ITEM 3.)

Mark (X) the ONE box which best describes the commodities handled that accounted for the greatest percentage of this company's motor carrier freight revenue in 1988.

1 ☐ General freight
2 ☐ Special commodities including household goods

ITEM 3 NUMBER OF ESTABLISHMENTS	Key code	1988 Number
Enter the total number of motor freight transportation and warehousing establishments operated by this company as of December 31, 1988.	803	

CONTINUE WITH ITEM 4 ON PAGE 2

Page 2

OPERATING REVENUES

Line A — Report all revenues from the transportation of property by motor vehicles. Include revenues from furnishing vehicles with drivers to other carriers under lease or similar arrangement.

Line B — Report commissions for providing brokerage services, making payroll deductions, or collecting freight charges for other carriers. **Household goods carriers** — Report booking, origin, and packing commissions.

Line C — Report revenues from the short-term rental or extended-term leasing (with or without maintenance) of trucks, truck-tractors, or trailers, **without** drivers.

Line D — Report revenues from the storage of shipments in your warehouses pending further instructions by the shipper; and from the permanent storage of household goods on a paid-on-delivery basis, commercial goods, or records storage. Include rental receipts from the operation of mini-warehouses and self-service storage facilities. **Exclude** revenues from the subleasing of warehousing space to others.

Line E — Report revenues from packing and crating, handling, providing labor to other carriers for loading and unloading, and other accessory services.

Line F — Report amounts received from other carriers for the use of terminal facilities operated by this company. Include amounts billed separately for repair services. **Exclude** revenues from other operating units of this company.

Line G — Report all other operating revenues including sales from the operation of lunchrooms, restaurants, etc.; receipts from the parking and storage of vehicles; receipts from snowplow work; etc. **Exclude** the value of used equipment or vehicles sold; receipts derived from any equity or full payout leasing arrangement ("finance" leasing); and non-operating receipts such as income from investments, the sale of securities, real estate, etc. **NOTE: If the amount reported on this line is greater than 50 percent of the total operating revenues reported in line H, indicate the source of these revenues in the remarks section on the back of this form.**

Line H — Report the sum of Lines A through G

	Key code	1988 Bil.	Mil.	Thou.	Dol.
A. Motor carrier freight revenues	508				
B. Commissions	601				
C. Lease and rental revenues from trucks and other motor vehicles, without drivers	508				
D. Warehousing and storage revenues	509				
E. Warehouse handling revenues	602				
F. Revenues from the operation of terminal facilities	603				
G. All other operating revenues	610				
H. TOTAL OPERATING REVENUES	511				

ANALYSIS OF OPERATING REVENUES

Line A — Report in line A(1), the percentage of total motor carrier freight revenues (reported in line 4A) from trucking or transfer services provided within a city, town, or other local area including adjoining municipalities or suburban areas. Report, in line A(2), the percentage of motor carrier freight revenues from "over-the-road" trucking services either as a common carrier or under special or individual contract or agreement. (Note: The sum of lines A(1) and A(2) should equal 100 percent.)

Line B — Report in line B(1), the percentage of this company's total motor carrier freight revenues (reported in line 4A) from handling shipments with an actual weight of up to 10,000 pounds (less-than-truckload). Report in line B(2), the percentage of total motor carrier freight revenues from handling shipments with an actual weight of 10,000 pounds or more (truckload). (Note: The sum of lines B(1) and B(2) should equal 100 percent.)

Line C — Report the percentage of total motor carrier freight revenues (reported in line 4A) derived from hauling each of the following commodities. (Note: The sum of lines C(1) through C(10) should equal 100 percent.)

(1) Agricultural and food products — Includes live animals (cattle, horses, poultry, hogs, etc.), seafood, fresh farm products (grain, flowers, nursery stocks, raw milk, etc.), and processed foods and tobacco products (canned goods, prepared meats, frozen foods, beverages, cigarettes, etc.).

(2) Mining products, unrefined — Includes crude oil, coal, and metal ores.

(3) Building materials — Includes gravel, sand, concrete, flat glass, etc. **Excludes** cut lumber.

(4) Forestry, wood, and paper products — Includes logs and forest products, lumber and fabricated wood products (except furniture), paper, and paper products.

(5) Chemicals and allied products (except petroleum) — Includes chemicals and drugs (fertilizers, pesticides, cosmetics, paints, etc.), plastics, and rubber products.

(6) Petroleum and petroleum products — Includes paving and roofing materials.

(7) Metals and metal products — Includes primary metal products (pipes, ingots, billets, sheets, etc.), fabricated metal products, machinery, and transportation equipment and parts.

(8) Household goods — Includes household and office furniture from homes, offices, etc.

(9) Other manufactured products — Includes furniture and hardware (not involved in household moving), glass products, textiles and apparels (fibers, leather products, carpets, clothing, etc.) and miscellaneous manufactured products (photographic goods, watches, clocks, jewelry, toys, etc.).

(10) All other — Includes scrap, garbage, trash, septic tank waste, industrial water, mixed cargo (including delivery of small packages), etc. Please specify the primary commodity hauled in this category.

Line D — Report the percentage of this company's warehouse storage and handling revenues (the sum of lines 4D and 4E) attributable to household goods in line D (1), and the percentage attributable to all other goods in line D(2). (Note: The sum of lines D(1) and D(2) should equal 100 percent.)

Estimates are acceptable if book figures are not available

	Key code	Percent
A. Percentage of motor carrier freight revenues from:		
(1) Local trucking	506	%
(2) Intercity trucking	507	%
B. Percentage of motor carrier freight revenues from:		
(1) Less-than-truckload	605	%
(2) Truckload	606	%
C. Percentage of motor carrier freight revenues from:		
(1) Agricultural and food products	621	%
(2) Mining products, unrefined	622	%
(3) Building materials	623	%
(4) Forestry, wood, and paper products	624	%
(5) Chemicals and allied products (except petroleum)	625	%
(6) Petroleum and petroleum products	626	%
(7) Metals and metal products	627	%
(8) Household goods	628	%
(9) Other manufactured products	629	%
(10) All other — *Please specify* ____	630	%
D. Percentage of warehouse storage and handling revenues from:		
(1) Household goods	631	%
(2) All other goods	632	%

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FORM D-514 (12-9-88)

CONTINUE ON PAGE 3 ⟶

ITEM 6 **PAYROLL AND OPERATING EXPENSES**

Line A — Report the gross earnings paid in calendar year **1988** to employees prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance premiums, union dues, savings bonds, etc. Include all wages, salaries, commissions, dismissal pay, paid bonuses, vacation and sick leave pay, and the cash equivalent of compensation paid in kind. If a corporation, include salaries of officers; if an **unincorporated** concern, **exclude** payments to proprietors or partners.

Line B — Report **employer's cost** for legally required and voluntary employee fringe benefit programs. Include employer's Social Security contribution, unemployment compensation, worker's compensation insurance, insurance premiums on hospital and medical plans, life insurance premiums, pension plans, stock purchase plans, etc. Estimates are acceptable if book figures are not available.

Line C — Report the cost of **gasoline** and other fuels, including all applicable Federal and State gasoline, diesel fuel, and oil taxes in line C(1). Report the cost of purchased fuels consumed for heat, power, or generating electricity in line C(2).

Line D — Report in line D(1), rental payments made to agents for furnishing revenue vehicles (trucks, truck-tractors, or trailers) **with** drivers for the exclusive use and control of this firm. Report payments made to other carriers (except agents) for the rental of revenue vehicles **with** drivers in line D(2) and **without** drivers in line D(3) for this firm's exclusive use and control. Report the cost of all other purchased transportation in line D(4), including payments for the transportation of individual shipments and part loads in the vehicles of another carrier, when the hauling carrier retains control of the vehicle and driver; payments to railroads, water carriers, airlines and others for the transportation of this company's loaded or empty revenue vehicles and containers; and payments for the delivery of small shipments by parcel post or messenger.

Line E — Report payments made to other companies for the rental and leasing of buildings, structures, and offices in line E(1), and for machinery and equipment (other than trucks and other motor vehicles) in line E(2). Include payments for leased assets under either a capital or operating **lease**. Payments under a capital lease should be reported as the actual amount paid to the lessor, not the value estimated for depreciation of the capital lease. **Exclude** payments for use of depreciable assets owned by a parent company or subsidiary.

Line F — Report in line F(1), the net cost (premiums less dividends or refunds) of commercial insurance to protect the company against liability for deaths or injuries of persons (other than employees) and damages to property of others resulting from the operation of owned and leased vehicles. Report in line F(2), the net cost of commercial insurance to protect the company against liability for claims resulting from loss or damage to, or delay of property entrusted to it for transportation or storage; and losses from fire, theft or collision damage to owned or leased vehicles. Deduct from lines F(1) and F(2) premiums received as commissions from other motor carriers as part of a contractual hauling agreement. Report in line F(3), the net cost of commercial insurance to protect the company against loss of or damage to buildings, structures, machinery and equipment (other than motor vehicles) caused by fire, flood, wind, boiler explosion, or any other cause.

Line G — Report in line G(1), the amount paid for tires and tubes, and parts used in repairs to company owned or leased vehicles performed by company personnel. Report amounts paid to others for repair of company owned or leased vehicles (include charges for parts and labor) in line G(2). Report the amount of purchased repairs to buildings, structures, and offices in line G(3), and machinery and equipment (other than motor vehicles) in line G(4). **Exclude** repairs performed on leased buildings or equipment and paid for under the lease agreement, and improvements for which depreciation accounts are ordinarily maintained.

Line H — Report the amount of depreciation and amortization charges against depreciable assets owned by your company. Report separately depreciation of trucks and other motor vehicles in line H(1); depreciation for buildings, structures, and offices in line H(2); and depreciation of machinery and equipment (other than motor vehicles) in line H(3). Include depreciation on assets rented or leased to others by you under an operating lease agreement. **Exclude** depreciation on assets leased to others by you under a capital lease agreement. Do not adjust for the value of depreciable assets sold or traded for replacement purposes.

Line I — Report payments to Federal, State, and local governments for vehicle licensing and registration, tolls, and other vehicle use taxes. **Exclude** all gasoline, diesel fuel, and oil taxes, as well as real estate and personal property taxes.

Line J — Report other operating expenses not reported in lines A through I. Include real estate and personal property taxes, the cost of purchased utilities, communication services, advertising, office supplies, losses by damage or theft not covered by insurance, bad debt losses, etc. **Exclude** interest on loans, as well as sales taxes and other taxes collected directly from customers and paid directly to a taxing authority. **NOTE: If the amount reported on this line is greater than 50 percent of the total operating expenses reported in line K, indicate the source of these expenses in the remarks section on the back of this form.**

Line K — Report the sum of lines A through J.

	Key code	1988 Bil.	Mil.	Thou.	Dol.
A. Annual payroll	513				
B. Employer contributions to Social Security and other supplemental labor benefits	513				
C. Cost of purchased fuels					
(1) Trucks and other motor vehicles	514				
(2) Heat, power, and generating electricity	515				
D. Cost of purchased transportation					
(1) Trucks and other motor vehicles rented or leased with drivers from agents	840				
(2) Trucks and other motor vehicles rented or leased with drivers, except from agents	841				
(3) Trucks and other motor vehicles rented or leased without drivers	842				
(4) Transportation purchased from railroads, airlines, water and other motor carriers	843				
E. Lease and rental payments					
(1) Buildings, structures, and offices	844				
(2) Machinery and equipment (other than motor vehicles)	845				
F. Cost of insurance					
(1) Public liability and property damage insurance	846				
(2) Insurance for loss or damage to motor vehicles and their cargos	847				
(3) Insurance for buildings, structures, offices, and machinery and equipment (other than trucks and other motor vehicles)	848				
G. Maintenance and repair costs					
(1) Motor vehicle parts for self-repair, including tires and tubes	849				
(2) Purchased repair services for trucks and other motor vehicles	850				
(3) Purchased repairs for buildings, structures, and offices	851				
(4) Purchased repairs for machinery and equipment (other than motor vehicles)	852				
H. Depreciation					
(1) Trucks and other motor vehicles	518				
(2) Buildings, structures, and offices	853				
(3) Machinery and equipment (Other than motor vehicles)	854				
I. Taxes and licenses	520				
J. Other operating expenses	855				
K. TOTAL OPERATING EXPENSES	522				

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CONTINUE ON PAGE 4 →

Page 4

ITEM 7 INVENTORIES OF REVENUE GENERATING FREIGHT EQUIPMENT — DECEMBER 31, 1988

(FOR MOTOR FREIGHT CARRIERS ONLY. ALL OTHERS SKIP TO ITEM 8.)

Report the number of vehicles (owned or that were leased without drivers from others) used or held for use in motor carrier operations on December 31, 1988. Exclude vehicles that you own that were leased without drivers to others.

	DECEMBER 31, 1988 INVENTORY					
	Key code	Trucks (1)	Key code	Truck-tractors (2)	Key code	Trailers (full and semi) (3)
A. Number owned	823		824		825	
B. Number leased	826		827		828	
C. TOTAL →	829		830		831	

ITEM 8 REPORT PERIOD

Mark (X) the one box which best describes the period covered by your report. If the data reported in items 4, 5, and 6 are for a period other than the "calendar year," please enter the beginning and ending dates.

1 ☐ Calendar year — *Go to item 9*
2 ☐ Fiscal year
3 ☐ Less than 12 months

	Key code	1988 Month	Day	Year
From	836			
To	837			

ITEM 9 OWNERSHIP OR CONTROL

a. Does another company own more than 50 percent of the voting stock or have the power to control the management and policies of this company?
1 ☐ YES →
2 ☐ NO — *Continue with item 9b*

Name of owning or controlling company
Number and street
City, State, and ZIP Code
EI Number →

b. Did this company acquire or merge with another company in 1988?
1 ☐ YES →
2 ☐ NO — *Continue with item 10*

Name of company acquired or merged with
Number and street
City, State, and ZIP Code
Date of Merger or Acquisition → Month Year
EI Number →

REMARKS — *Please use this space for any explanations that will assist in understanding your reported data.*

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ITEM 10 CERTIFICATION — This report is substantially accurate and has been prepared in accordance with instructions.

Name of person to contact regarding this report	Address (*Number and street, city, State, ZIP Code*)	Telephone: Area code	Number	Extension

Signature of authorized person	Title	Date

FORM S-514 (12-9-88)

☆U.S.GOVERNMENT PRINTING OFFICE:1989-261-914-00086

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